ELECTRONIC BARTERING SYSTEM WITH FACILITATING TOOLS

RELATED APPLICATIONS

This application claims priority to U.S. Provisional Patent Application No. 60/271,541 filed February 26, 2001, U.S. Patent Application No. 09/454,035 filed 12/03/99, U.S. Provisional Patent Application No. 60/161,318, filed October 25, 1999, U.S. Provisional Patent Application No. 60/153,142, filed September 9, 1999, and U.S. Provisional Patent Application No. 60/147,243, filed August 5, 1999, each being herein incorporated by reference.

FIELD OF THE INVENTION

The present invention relates to systems and methods for facilitating the trading of items or securities and more particularly to systems and methods for facilitating the electronic bartering of items or securities.

BACKGROUND

Automated computer systems matching buy and sell orders for trading stocks, futures and other properties are well known in the art. An example of such a system is shown in U.S. Patent No. 3,573,747 to Adams, et al., which discloses a system for matching buy and sell orders for fungible properties between traders. After the initial match, one embodiment of this system allows traders to negotiate other terms of the transaction while all traders are continuously apprised of the negotiation status. A system disclosed in U.S. Patent No. 4,412,287 to Braddock relates to trading stock and discloses a central computer that matches buy and sell orders from a plurality of user terminals. U.S. Patent No. 5,689,652 to Lupien, et al. shows a computer network with a plurality of trader terminals that matches buy and sell orders incorporating a

satisfaction density profile. The density profile provides a measure for maximizing the mutual satisfaction of all traders.

Computer systems to match bids and offers are also well known in the art. A system disclosed in U.S. Patent No. 4,903,201 to Wagner matches bids and offers for future commodity contracts and detects illegal trade practices. U.S. Patent No. 5,727,165 to Ordish, et al., discloses a network system and further provides confirmation timing and notification messaging to traders. In U.S. Patent No. 5,924,082 to Silverman, et al., a negotiated matching system is shown which matches bids and offers based on a criteria that includes "ranking" data. The ranking data is comprised of credit and risk information to facilitate the best matches with respect to risk management. Another aspect of this system permits traders to negotiate directly with each other prior to or after an initial match is made by the system. The system of U.S. Patent No. 5,926,801 to Matsubara et al. also matches bids and offers, and in one embodiment, credit criteria is considered in the match.

A computer system disclosed in U.S. Patent No. 5,873,071 to Ferstenberg, et al. includes an intermediary computer program and an electronic agent computer program which can operate over the Internet. The intermediary computer program mediates offers and counter-offers for financial commodities. Goals, expressed as either a set of computer rules or as an objective with constraints, are set by the participants and the electronic agent computer program generates counter-offers according to the goals in response to offers from the intermediary computer program. In one embodiment of the system, a calculated "fairness measure" is used to determine satisfaction of the participants goals.

None of these patents address a bartering, exchanging or selling system whereby an individual trader constructs a barter order by establishing trading parameters that include an item to be bartered and a desired item to be received. Accordingly, none of these systems characterize potential barter exchanges in a quantifiable manner for an individual trader. The known electronic systems also fail to provide a means for assisting traders in the selection of trading items from that trader's portfolio of financial instruments.

SUMMARY OF THE INVENTION

The present invention relates to a computer-based system for bartering, exchanging or selling, (hereinafter referred to as bartering), items or securities including but not limited to, stock, cash (foreign or domestic currencies), web barter dollars (defined below), Himmelstein Options (defined below), CD's, bonds, notes, Option Put, Option Call, Commodities/Futures, Annuities, Muni Bond(s), Government Bonds, Funds, Strips (Zero Coupon Treasuries), Ginnie Mae(s), Fannie Mae(s), Freddie Mac(s), UIT (Unit Investment Trust), T-bills and any future created or defined security, commodity or commodity money wherein a barter order indicating the item to barter and the desired barter item are matched by the website. Barter transactions are made which combine a barterer's barter order with a matching order or combination of orders which the barterer selects or the barterer has automatically selected by the website. Barter transactions can incorporate agreements. One agreement, termed a Himmelstein Option, permits barterers to agree to a future range of dates: a date after the barter transaction may occur and a date before the barter transaction must occur or the rights of ownership may expire. These dates may be the same. The before date may be indefinite. Himmelstein's Options (i.e. the portion of the barter transaction that is to be acquired) may be sold for cash or bartered (i.e. assign their rights or transfer their rights for a different security). In other words, the Himmelstein Option agreement, once acquired may be assigned without the written consent of the issuer/creator. This means that acquirer may transfer his rights to acquire the security or other item, which is the subject of a Himmelstein Option to someone else. Himmelstein options also include other conditions or parameters in the agreement as well.

The electronic bartering system of the present invention includes tools for facilitating the function of the system users. Provided with the present invention are toolkits for market makers to set automated and manual trading rules, toolkits for market makers to generate customized stock trade ticker lists and profit and loss statements, and toolkits for users to establish basket and contingency barter orders.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a diagram of a bartering system in accordance with the teachings of the present invention.

Figure 2 is a schematic diagram of the structure of an example barter database and barter order in accordance with the teachings of the present invention.

Figure 3 is a schematic diagram of a multi-order barter transaction in accordance with the teachings of the present invention.

Figures 4A-4E are flowcharts of a typical barter ordering session and barter transaction in accordance with the teachings of the present invention.

Figures 5A-5F are portions of screen displays illustrating the creation of a sample barter order in accordance with the teachings of the present invention.

Figure 6 is an example of a barter transaction screen in accordance with the teachings of the present invention.

Figures 7A-7E are schematic illustrations of several different types of barter transactions which may be implemented according to the teachings of the present invention.

Figure 8 is a schematic diagram of the components of a barter posting module in accordance with the teachings of the present invention.

Figures 9A and **9B** are tables illustrating general and specific parameters for classes of barter items that are preferably utilized in a barter system made using a Himmelstein Option in accordance with the teachings of the present invention. Specifically, the "barter/settlement date, open/close" column in the tables is a condition or parameter included in the Himmelstein Option.

Figure 10 is a block diagram showing the bartering system of Fig. 1 and further including market order, basket order and contingency order toolkits;

Figure 10A is an alternate embodiment of the present invention.

Figure 11 is a copy of a graphical user interface for a computer screen by which a user can request current trade prices for a barter order;

Figure 12 is a copy of a graphical user interface for a computer screen by which barter order trade prices, responsive to a barter order trade price request, can be reported to a user;

Figure 13 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 12;

Figure 14 is a copy of another user help request screen for use by a user in interpreting the GUI of Figure 12;

Figure 15 is a copy of a graphical user interface for a computer screen by which a user can request an execution of a barter order;

Figure 16 is a copy of a graphical user interface for a computer screen by which a marketmaker can establish automatic rules for responding to barter order requests and orders;

Figure 17 is a copy of a graphical user interface for a computer screen by which a marketmaker can select pre-established symbols to be used in setting up automated rules;

Figure 18 is a copy of a user help request screen for use by a marketmaker in interpreting the GUIs of Figures 16 and 17;

Figure 19 is a copy of another user help request screen for use by a marketmaker in interpreting the GUIs of Figures 16 and 17;

Figure 20 is a copy of another user help request screen for use by a marketmaker in interpreting the GUIs of Figures 16 and 17;

Figure 21 is a copy of a graphical user interface for a computer screen by which a user can define a contingent barter order;

Figure 22 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 21;

Figure 23 is a copy of another user help request screen for use by a user in interpreting the GUI of Figure 21;

Figure 24 is a copy of a graphical user interface for a computer screen by which a user can define a contingent barter order;

Figure 25 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 24;

Figure 26 is a copy of a graphical user interface for a computer screen by which a user may define a basket of orders for a barter offer;

Figure 27 is a copy of a user help request screen showing a 'drop down' menu for use with the screen of Figure 26 by which a user can select a method for quantifying the basket barter order;

Figure 28 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 26;

Fig. 29 is a copy of a user help request screen showing a 'drop down' menu for use with the screen of Figure 26 by which a user can select symbols to use in defining the basket barter order;

Figure 30 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 29;

Figure 31 is a copy of a graphical user interface for a computer screen by which a user can define the filters used in establishing a basket barter order in the GUI of Fig. 26;

Figure 32 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 31;

Figure 33 is a copy of an alternate graphical user interface for a computer screen by which a user, directly through the illustrated graphical user interface and/or the linked graphical user interfaces described in the Figures below, can interface the barter order system of the present invention;

Figure 34 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 33;

Figure 35 is a copy of a graphical user interface for a computer screen, accessible through the selection of the "Order History" tab of the graphical user interface of Figure 33, by which a user can review order histories;

Figure 36 is a copy of a graphical user interface for a computer screen, accessible through the selection of the "Saved Orders" tab of the graphical user interface of Figure 33, by which a user can review saved orders;

Figure 37 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 33, by which a user can enter orders;

Figure 38 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 37;

Figure 39 is a copy of a graphical user interface for a computer screen, accessible through the "Trade From Order Book" button of the graphical user interface of Figure 37, by which a user can trade orders;

Figure 40 is a copy of a graphical user interface for a computer screen, accessible through a button in the user interface Figure 39, by which a user can obtain level II stock quotes;

Figure 41 is a copy of a graphical user interface for a computer screen, accessible through a button in the graphical user interface Figure 39, by which a user can obtain internal and external order information;

Figure 42 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 39;

Figure 43 is a copy of a user help request screen for use by a user in interpreting the GUIs of Figures 40 and 41;

Figure 44 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 39;

Figure 45 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 39;

Figure 46 is a copy of a graphical user interface for a computer screen, responsive to the operation of the "Quick Fill" button in the graphical user interface of Figure 39, by which a user can obtain order execution confirmation information;

Figure 47 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 46;

Figure 48 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 39;

Figures 49 and 50 are copies of user help request screens for use by a user in interpreting the GUI of Figure 39 and in particular for calculating savings from using the present system;

Figure 51 is a copy of a graphical user interfaces for a computer screen, accessible through the graphical user interface Figure 37, by which a user can enter limit orders;

Figure 52 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface Figure 37, by which a user can enter market orders;

Figure 53 is a copy of a user help request screen for use by a user in interpreting the GUIs of Figures 51 and 52;

Figure 54 is a copy of a graphical user interface for a computer screen, accessible through the dropdown tool menu "Rules" option in the graphical user interface of Figure 33, by which a user can access a marketmaker toolkit;

Figure 55 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 54;

Figure 56 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 55, by which a user can establish a trading rule;

Figure 57 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 56;

Figure 58 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 54, by which a user can establish a trading condition;

Figures 59, 60 and 61 are copies of user help request screens for use by a user in interpreting the GUI of Figure 58;

Figure 62 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 54, by which a user can establish a pricing tier;

Figure 63 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 62;

Figure 64 is a copy of a graphical user interface for a computer screen, accessible through graphical user interface Figure 54, by which a user can create a customized trade ticker;

Figure 65 is a copy of a computer screen illustrating an exemplary trade ticker established using the graphical user interface of Figure 64;

Figure 66 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 64 to create the ticker of Figure 65;

Figure 67 is a copy of a graphical user interface for a computer screen, accessible through graphical user interface Figure 54, by which a user can create a customized position/profit and loss report;

Figures 68 and 69 are copies of computer screens illustrating exemplary position/profit and loss reports established using the graphical user interface of Figure 67;

Figure 70 is a copy of a user help request screen for use by a user in interpreting the GUI of Figure 67;

Figure 71 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 54, by which a marketmaker can create a manual offer;

Figure 72 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 71, by which a user can edit manual offer default criteria;

Figure 73 is a copy of a user help request screen for use by a user in interpreting the GUIs of Figures 71 and 72;

Figure 74 is a copy of a graphical user interface for a computer screen, accessible through the graphical user interface of Figure 54, by which a user can view symbols used in creating rules and by which a user can create new symbols used in creating rules; and

Figures 75 and 76 are copies of user help request screens for use by a user in interpreting the GUI of Figure 74.

DETAILED DESCRIPTION OF THE INVENTION

The present invention will be described with reference to the drawing figures where like numerals represent like elements throughout.

The Himmelstein Option is a new type of financial interest being created by the present invention. Utilizing Himmelstein Option(s) allows the present invention to create a new type of

market ("virtual market"), whereby barters may own and/or barter Himmelstein Options for Himmelstein Options, indefinitely, without having to possibly incur ordinary or capital gains taxes. Furthermore, as long as the individual who owns a Himmelstein Option or is in the possession of a Himmelstein Option does not go to settlement and "take title", the actual owner of the security defers a taxable event.

The system creates web barter dollars to further its ability to facilitate a virtual market. Web barter dollars are the system's currency with a unit (commodity dollar) which is preferably set to equal the U.S. dollar or some other standard such as foreign currency, gold etc. The system, for example, uses web barter dollars to track an "I owe you" ("IOU") to individuals giving up a security but not simultaneously receiving a security back. Preferably, the system uses web barter dollars to supplement or balance a barter in lieu of other currencies such as the U.S. dollar. Using web barter dollars or cash simplifies the matching of barter orders where items of unequal value are traded.

When converting IOUs or web barter dollars to a different security, the system may charge a different fee based on the age of the IOUs. For instance, if the IOU is to be held longer, the system may charge a lower percentage or lower fee to convert to U.S. dollars. Further, the system may charge a different fee or a different percentage based on the relationship with a particular individual requesting the conversion. The system and barterers may barter web barter dollars for cash at different values. For example, the system may charge a fee to convert from web barter dollars to cash, but as an incentive provide extra web barter dollars for cash. Should there ever be a need to have the system redefine or modify its definition for IOUs or web barter dollars, the system reserves the right (in the Agreement(s)) and can do so. For example, the system may change IOU's or web barter dollars to system funds, which are portable and permit a barterer to transfer shares of system funds to specific institutions without having to redeem shares and possibly incur a taxable event. Accordingly, those skilled in the art should recognize that the system can be configured to perform any, and all stock market, banking and financial institution functions.

Referring to **Figure 1**, one embodiment of a barter system **100** is illustrated which utilizes a computer-based website that may effectuate the trading of barter items. Barter items are defined including, but not limited to, stock, cash (foreign or domestic currencies), web barter dollars, Himmelstein Options, CD's, bonds, notes, Option Put, Option Call, Commodities/Futures, Annuities, Muni Bond(s), Government Bonds, Funds, Strips (Zero Coupon Treasuries), Ginnie Mae(s), Fannie Mae(s), Freddie Mac(s), UIT (Unit Investment Trust), T-bills and any future created or defined security, commodity or commodity money. Bartering different categories of items is supported by the system **100**. For example, stocks can be bartered for bonds. The system **100** provides for its own "web-barter dollars" which may be accumulated or traded by barters using the system **100** and are particularly useful in facilitating barters where items of unequal value are traded.

The system **100** may be a web-based application or a non-web-based application. The system may operate over a private network or a public network, such as the Internet, to facilitate a connection with a barterer's computer.

The system **100** preferably includes a barter website **106** which is accessed via an investing company website **102**, or directly via the Internet using a computer such as a personal computer **114** or a wireless hand-held computer with Internet connectivity **110**. Optionally, the system **100** may be incorporated as part of an existing investing company's website.

In the case of access via an investing company website **102**, the barterer uses a computer such as a personal computer **108**, a portable computer **116** or a wireless hand-held computer with Internet capability **112** to select a "Barter" icon **103** that incorporates a link **104** to the barter website **106**. Once the icon is selected, the trader's investing company account information is transferred via a link **104** to the barter website **106**. In this manner, the barter website **106** is produced with all of the relevant particulars of each item owned by the individual trader. For example, in the case of bonds, the website **106** preferably includes the entity that issued bonds, amount of bonds, market value, interest date and due date data. In the case of stocks, the barter website **106** preferably includes data indicating company, number of shares, market value and

whether dividends are reinvested. Using the link **104**, the barter website **106** is transparent to a barterer accessing it via the investing company website **102**.

The system **100** can be further interfaced with traditional brokers so traditional brokers and clients without the resources to go directly "online" can barter in the same manner.

While the barter system **100** supports bartering different categories of items such as stocks, Himmelstein Options for stocks, notes, Himmelstein Options for notes, bonds, and Himmelstein Options for bonds, an online investing company hosting the "Barter" icon **103** can limit barters to certain categories of items. For example, an investment company website that provides online stock trading may chose to limit the barter website **106** to only stock and/or Himmelstein Options for stock and/or Himmelstein Option barters. This allows someone (a barterer) to acquire a Himmelstein Option which is, in this case, the right to own stock at a future date which allows the other barterer the ability to delay or defer the taxable event. This is accomplished by setting an appropriate filter so that only stock and/or Himmelstein Option is identified in the barter orders. Preferably, such a filter also allows use of web-barter dollars and/or cash which enables a wider range of barter orders to be matched and barter transactions to be completed.

Regardless of the items bartered, the barter website **106** comprises three main components: a barter ordering module **105**, a posted barter order database module **117** and a barter matching engine **118**. Optionally, the system **100** may include a separate database (not shown) of each individual's portfolio for all securities. In general, the barter ordering module **105** permits a trader, herein referred to as the barterer, to create a barter order that includes the item to be traded, the item desired and additional parameters related to the barter order.

The table set forth in **Figure 9A** reflects typical parameters associated with various classes of items or securities to be identified in a barter order. In each barter order, the appropriate parameters are identified for both the item to be traded and the item to be acquired so that the barter order comprises two sets of item parameters. The two sets of parameters may be quite different where the two items, which are the subject of the barter order, are of a different class or type.

Each portfolio item, regardless of type or classes, may optionally be transformed into a Himmelstein Option agreement by defining a future date or range of dates for settlement using the last column in the table **Figure 9A**. The Himmelstein Option is posted for immediate barter, but is subject to the specific settlement date or range identified.

A Himmelstein Option permits a security to go "under agreement" with a specific future closing date, (similar to a purchase of real estate). Presently, the IRS does not treat this as a taxable event at the time of the agreement. An individual who owns a Himmelstein Option may barter it again (with the same or different terms as the original agreement) without having settlement and obtaining ownership of the underlying security. Obviously, "different terms" are limited to a subset of terms of the original Himmelstein Option agreement that was issued.

The "standard" Himmelstein Option requires that the individual acquiring the Himmelstein Option must put up the full amount of the desired security at that time, (i.e. and nothing at settlement). If the desired security is also a Himmelstein Option, providing the rights to acquire or transferring the rights meets this requirement. It should be noted that each Himmelstein option may have different future dates for settlement. The IRS may attempt to claim that this constitutes a derivative. However, if an individual is bartering away a security and barters for a security, on future dates utilizing Himmelstein Options, they are receiving a derivative and giving away a derivative. Consequently, in most cases, these derivatives in essence, "cancel out." The system **100** may further require that the barterers agree on the value for the Himmelstein Option should the IRS consider it a derivative. Preferably, the system sets the "barter value" as the default agreed upon value.

The person who issues a Himmelstein Option or barters an acquired Himmelstein Option chooses the future date or range of dates for settlement and value which must be accepted by the acquirer. If there was a future range of dates given for settlement, it is the choice of the person acquiring the Himmelstein Option to go to settlement within the specified range. The "standard" Himmelstein Option automatically goes to settlement on the final day should the person acquiring the Himmelstein Option not choose a date. The system **100** may charge an additional fee for the actual settlement.

When an individual creates a barter order for any security, the system **100** produces an Agreement of Barter, Exchange or Sale (i.e. terms and conditions). Barterers, in essence, fill in the "blanks" of the Agreement of Barter, Exchange or Sale. The system **100** may also require electronic signatures to accompany the Agreement or may create a parallel Agreement for each barterer for simplicity and anonymity purposes. The Agreement is also with the system **100,** providing various conditions or rights that the system **100**, intermediary or designated agent(s) has with the barterer.

At settlement of transactions comprising Himmelstein Options, title to the security or financial interest, which is the subject of the Himmelstein Option, is transferred. For stock, for example, settlement may require the actual transference of Stock Certificates. Preferably the traded stocks are not in paper certificate form so that a book entry of the stock transfer may be made to transfer title.

Once bartered, a Himmelstein Option cannot be canceled by its creator. Himmelstein Options may continually be bartered without being required to have settlement. Examples of a Himmelstein Option with appropriate parameters for each of nine different classes/types of items are set forth in the table of **Figure 9B**. Similar to **Figure 9A**, in **Figure 9B** each row shows one of the items of a barter order, i.e. an item to be bartered or an item to be acquired. A Himmelstein Option may be identified as a "to be bartered item" and actual stock may be identified as a "to be acquired item" in a given complete barter order. A Himmelstein Option may be acquired via the barter system as soon as it is posted, but the actual ownership of the financial interest, which is the subject of the option, is not transferred to the acquiring party until the acquiring party exercises the Himmelstein Option during the settlement period.

When the barterer creates a barter order, the system **100** creates an order number referencing the barter order. The system **100** may randomly create or code barter order numbers so only the system **100** is aware of the age of a barter order and the identity of the barterer. The posted barter order database module **116** accumulates posted barter orders and includes the software to add, delete and maintain the data in the database. The barter matching engine **118** selectively matches a barterer's barter order with posted barter orders in the database **116**.

Posted barter orders "matching" a barterer's order are displayed such that the barterer can select a candidate or candidates from the displayed listing of matching posted orders. The matching process functionally operates as a filter to display posted orders matching a selected criteria. Preferably, the filter is set to match the barterer's selected item to be acquired with posted orders having the same item to be bartered. The quantity of the selected item may also be used for filtering to require a direct quantity match or a match within a quantity range. The barterer's selected item to be bartered is also a preferred criteria for the matching filter, so that postings are displayed of barter orders which seek to acquire the item selected to be bartered by the barterer. A preferred filter includes both the barterer's selected item to be bartered and selected item to be acquired. Optionally, the filter may allow both specific items of a class as well as Himmelstein Options for the specific items. Thus, where a barterer's desired item is IBM stock, posted barter orders seeking to barter away IBM stock or Himmelstein Options for IBM stock are displayed as matches.

The barter matching engine **118** is configurable to either match one "best" posted order or multiple posted orders with a barterer's order. The barter engine **118** can also be configured to use the barter website (or an entity chosen by the website) as an intermediary as explained in greater detail below.

Figure 2 illustrates a typical stock and/or Himmelstein Option for stock and/or Himmelstein Option barter transaction involving sample posted barter orders **204-224** stored in a database **216** of module **116** and a sample barterer's barter order **226**. In this example, the barter order includes the stock to be bartered indicated by stock symbol **228**, the quantity **230** of the stock to be bartered, the value **232** at which the barterer is willing to barter, the desired stock **234** indicated by stock symbol, the value **236** the barterer is willing to barter for the desired stock, and an "*" indicating the ownership of the Himmelstein Option for the stock instead of ownership of the stock itself. Preferably, the settlement date(s) are displayed for all Himmelstein Options. The stock values of a barter order need not be a fixed value. For example, values identified for several of the posted barter orders **204, 208, 212, 218-224** are based on the current market price of at least one of the respective stocks. Barter order **226** indicates that the barterer

has 45 shares **230** of Dupont stock (stock symbol DD) **228** which the barterer is willing to trade at a value of $20 per share **232** for Aetna stock (stock symbol AET) **234** at a value of $90 per share **236**. If the matching criteria is set to match only the barterer's acquire item selection (including Himmelstein Options for the item), orders **204, 206, 208** are displayed. If the matching criteria is set to match only the barterer's barter item selection (including Himmelstein Options for the item), orders **206, 208, 216** are displayed. If the matching criteria is set to match either the barterer's barter or acquire item selection (including Himmelstein Options for the item), orders **204, 206, 208, 216** are displayed. If the matching criteria is set to match both the barterer's barter and acquire item selections (including Himmelstein Options for the item), orders **206** and **208** are displayed. An order combining orders **204** and **216** may also be displayed in that situation.

Other criteria such as market value and the other parameters identified in **Figures 9A** and **9B** for each barter item may be displayed and used for matching. For example, where barter value is required to be matched, if the market value of Dupont stock is $20 per share, the barter engine **118** matches the order **226** with only one of the posted barter orders from database **216** namely, with posted barter order **208** from the database **216** since this posted order **208** barters Aetna stock for Dupont stock at the same value prices.

Where an additional matching parameter is set that all of an item of a barter order must be bartered, the Himmelstein Option for all 100 Aetna shares of posted barter order **208** must be bartered. In the example, the barter matching engine **118** would then fail to match barter order **226** with any posted order unless the barter website **106** acts as an intermediary as described below. Conversely, in an embodiment where the barter orders include a minimum share barter parameter, the barter engine **118** matches barterer order **226** if the minimum share parameter of the posted barter order **208** is less than 11 shares.

Figure 3 illustrates a multi-order barter selection **300** having first **302**, second **308**, third **314** and fourth **320** barter orders according to the present invention. Multi-order barter selection may be used either when no single barter order matches are found irrespective of whether single barter orders matches are found in order to find all potential available barters among the posted

barter orders. In this example, the barter engine **118** cannot fulfill the first barter order **302** with a single one of the other barter orders **308, 314** or **320**. The first barter order **302** barters Microsoft stock (stock symbol MSFT) **304** for RedHat stock (stock symbol RHAT) **306**. None of the other posted database orders barter RHAT for MSFT, but barter order **302** can be fulfilled if intermediate barters are matched. The barter matching engine **118** matches intermediate barters using several methods. In one embodiment, barter matching engine **118** searches for a posted barter order having a desired stock/Himmelstein Option that matches the barterer's stock/Himmelstein Option to be traded. Since posted barter order **320** lists MSFT as the desired stock **324** and the first barter order **302** stock to be bartered is MSFT **304**, the barter matching engine **118** search for the first half of the first barter **302** has been satisfied. However, the barter matching engine must find a match for the desired stock **306** for the first barter order **302** and must also find a match for the first half **322** of the third barter order, **320**. Accordingly, the barter matching engine must find a transaction that satisfies the desired stock Oracle (stock symbol ORCL) **322** of the third barter order **320**.

The barter matching engine **118** searches for an order that trades ORCL for RHAT in order to make a two posted order barter transaction. However, in the example, there is no posted order that trades these two stocks, so the barter matching engine **118** locates barter order **308** that trades Puma Technologies (stock symbol PUMA) **310** for ORCL **312**. The barter matching engine **118** then searches for another posted barter order that trades RHAT for PUMA to find a transaction candidate. Barter order **314** meets this criteria in that RHAT **316** is traded for PUMA **318**. Accordingly, barterer order **302** can be satisfied through posted barter orders **320, 308** and **314**. In a preferred embodiment so as to make the multi-order transactions transparent to the barterer, barter matching engine **118** displays multi-order barters as a single "phantom" posted barter order. The matching engine **118** creates a transaction and displays this phantom barter order in the list of matching barter candidates. The barterer simply selects the phantom barter order to finalize the multi-order barter transaction. In these examples, it is assumed that the values and other parameters set by the barterers permit all barter orders to occur.

In another method for locating multi-order barters, barter matching engine **118** begins by searching for the barterer's desired stock **306** first. Barter engine locates barter order **314** that trades RHAT **316** for PUMA **318**. Continuing in this manner, the engine locates the same posted barter orders as above, but in the reverse order. In general, the engine **118** attempts to link multiple barter orders. One of ordinary skill in the art of software programming appreciates that a recursive algorithm is well suited for generation of such a linked list.

The operation of barter ordering module **105** allows the barterer to enter the barter order. In one embodiment of the present invention, the barterer selects minimum barter order parameters such as the specific stock, quantity and value price of the stock to be bartered in addition to the desired stock and value price for the stock desired. Once these minimum parameters are selected, other parameters are set to default settings determined by barter ordering module **105**. In another embodiment, order parameters have interdependencies. For example, a barterer selects a quantity of shares of a stock to be traded as 100 shares and sets the per share value price to $15. The total value of the stock, $1,500, is computed by the barter ordering module as the product of the quantity of shares, 100, and the per share value price, $15. In the case where the barterer subsequently changes the total value of the stock from $1,500 to $2,000, the per share value price of the stock changes automatically to $20 since the value per share must be $20 to achieve the $2,000 total value with the 100 shares.

Barter orders may be created for stock and Himmelstein Option for stock barters as illustrated in flowcharts **Figures 4A-4E** and the screen displays of **Figures 5A-5F** where the barterer is prompted through each step of the barter order creation process. For bartering other securities or financial interests, including Himmelstein Options, the bartering steps and screen displays are modified to preferably accommodate all of the parameters for the classes of items identified in **Figures 9A-9B**.

The system **100** in its most generalized configuration permits barters of different securities, financial interests (including Himmelstein Options), or classes of items, i.e. Himmelstein Option for stocks for bonds, foreign currency for Himmelstein Option for T-bills, commodities for stocks, options for T-bills etc. The most generalized configuration of the

system **100** permits a barter to select any item in the barterer's portfolio of securities or financial interest as the subject of a Himmelstein Option which is immediately available for bartering where the title to the security or financial interest is not actually transferred until the Himmelstein Option is exercised in the range of settlement dates specified by the barterer creating the Himmelstein Option. Where a barterer's portfolio includes such Himmelstein Options, that barterer may create a Himmelstein Option of the Himmelstein Option in which case the range of settlement dates would be within the settlement date range of the original Himmelstein Option.

In the example of **Figures 4** and **5**, barter website **106** is accessed via an online stock trading company that limits bartering to stocks, Himmelstein Options for stock, cash, web barter dollars and combinations thereof. The flowchart of **Figure 4A** begins after the trader selects "Barter" icon **103**. Accordingly, barter ordering module **105** has received from the online stock trading website a barterer's list of currently owned stocks, Himmelstein Options for stock, web barter dollars and cash in the barterer's portfolio as well as the quantity and other specifics of these securities via link **104**. At step **402 Figure 4A**, the website displays all of the barterer's stock, Himmelstein Options for stock, web barter dollars and cash available for barter. In step **404**, The barterer selects from the displayed items in step **402**. In the embodiment of **Figure 5A**, a symbol **502** representing a selection of the barterers portfolio of stocks, Himmelstein Options for stock, web barter dollars and cash is displayed. The barterer selects, the downward triangle **501**, to display all available stocks, Himmelstein Options for stock, web barter dollars and cash as shown in **503**, an * indicating the ownership of a Himmelstein Option for the stock and date or range of dates for settlement instead of ownership of the stock itself. Preferably, blanks are provided to indicate an indefinite opening or closing for the Himmelstein Option settlement period. For example, the DuPont Option, DD* is depicted having an indefinite closing date.

The system preferably further indicates if the barterer's security is currently included in a posted barter order requiring the barterer to cancel said posted barter order prior to selecting the security for a new barter order. Optionally, an alphabetical list of companies and/or stock

symbols is displayed for alphabetical searching and/or the portfolio quantity **504** of the stock is also displayed. The barterer may enter the selected item **502** by typing it in. Preferably when the barterer begins typing the name or symbol of the company, the barter ordering module locates the first listed item that matches the entered characters. Alternatively, the portfolio is displayed for selection via an array of pull down menus **507**, each displaying one class of the items of the barterer's portfolio.

Once the barterer locates and selects the item to be traded, the total quantity of the selected item in the barterer's portfolio (as may be provided by the online stock trading website) is automatically displayed in step **406** of **Figure 4A** as the quantity to be bartered. At step **408**, the barterer can modify the quantity to be bartered **410**. As shown in **Figure 5A**, the quantity **504** can be modified via selection of the directional arrows **505** or the barterer can enter a new quantity value. In either case, in this embodiment the barter order module **105** does not allow a quantity value that exceeds the quantity owned by the barterer. Alternatively, the system **100** may be configured to permit the barterer to select a range of quantities to be bartered. For example, the barterer may specify a range such as 50-100 shares for barter.

Preferably, the barter ordering module **105** has access to trading prices at step **412** of **Figure 4A**, so that the trading price of the selected stock is displayed along with the time and date of the trading price as illustrated in display section **506** of **Figure 5A**. A fixed per share value of the stock or Himmelstein Option **508** of **Figure 5B** is initially set to the trading price. If barterers are trading away cash or web barter dollars, the system **100** in that instance may rearrange the screens and prompt the security being bartered for prior to prompting the cash or web barter dollars being traded away. As one skilled in the art will realize, the fields which are not applicable to cash or web barter dollars are modified to properly reflect what is being bartered. At step **414** of **Figure 4A**, the barterer can elect to trade at the displayed trading price or select a new barter value **416**. As **Figure 5B** illustrates, the barterer can change the default fixed per share value **508** or select the value of the stock to be bartered based on the fluctuating stock trading price by selecting block **510**.

By selecting the fluctuating value price, the value fluctuates until a barter transaction is finalized by a subsequent barterer who selects the barter order. For example, if IBM stock was trading at $115 per share and the barterer selects "barter at current stock trading price", the barter price would be $115 per share if the transaction occurred instantaneously. However, if the barter transaction occurred two weeks later and the stock-trading price dropped to $110, then $110 would be the barter value price. Likewise, if the stock-trading price went up, then the barter price would be that higher price.

Optionally, the barter value can be based upon the current stock trading price plus or minus a certain value or percentage in step **416** in **Figure 4A** and at step **511** in **Figure 5B** or the barter value can range around a fluctuating trading price specified as either a value amount or a percentage of the fluctuating trading price. To do this the barterer selects a range around the fluctuating stock value as illustrated in **Figure 5B** at **512, 518**. The range can be a value amount **514, 517** or a percentage of the fluctuating trading price **516, 519**. By selecting boxes **512** or **518**, the barterer selects whether the range is added to or subtracted from the fluctuating value. For example, if the range was set to plus 1 percent at step **416** (by selecting box **512** and entering 1% in box **516**) and the market price for IBM stock to be bartered, at the time of the barter transaction was $115 per share, a posted barter order with a value price between $115 and $116.15 would match the barterer's order. A barterer may issue a Himmelstein Option to barter away IBM stock as low as minus 9 percent of the $115 IBM market price by checking box **518** and entering 9% at box **519** so that a posted barter order with a value price between $104.65 and $115 would match the barterer's order.

Once the value of the item to be bartered is selected in step **416** of **Figure 4A**, the barter ordering module displays at step **418** of **Figure 4B** the total barter amount and the percentage or dollar amount of the value price in relation to the available market price per share in **Figure 5B**, at **520**. Should a range of value price be selected, the display **520** is modified to reflect such. In the example of **Figure 5B**, the barterer can change the barter value **520** by clicking on a "change" icon **522** and going through the appropriate steps or accept the value **520** by clicking on a "continue" icon **523**. This is also shown at step **420** of **Figure 4B**.

At step **422** of **Figure 4B**, barter order fee amounts are displayed. Fee amounts, as illustrated in sample screen display lines **524** and **526** of **Figure 5C**, are determined based on whether the barter order is to be posted to the barter order database **524** or the barter should occur with the barter website directly **526**.

At step **424** of **Figure 4B**, the barterer selects the time in which the barter order is valid. As illustrated in the embodiment of **Figure 5C**, timing options **528** are displayed once the barter selects the down arrow. The five options are:

1) day only;
2) good until canceled;
3) fill or kill;
4) immediate or cancel; or
5) only view the current posts.

The "day only" options means that the barter order can be posted to the posted barter database only until the end of the day. Thereafter, the barter order is expunged from the posted barter order database. The "good until canceled" option means that the barter order remains posted to the posted barter order database until it is canceled by the barterer. If the "fill or kill" timing option is selected, the entire quantity must be filled or the barter order is canceled. With "fill or kill" timing, the barter order is not be added to the posted barter order database, but the database is searched for a match. Similarly, a barter order is not added to the posted barter order database if the "immediate or cancel" timing is selected. In this case, a posted barter order for only part of the barterer's quantity matches the barterer's order. The last timing option, "only view the current posts", never adds the barter order to the posted barter order database. Instead, the barter matching engine **118** displays the current matches found in the posted barter order database.

At step **426** of **Figure 4B**, the barterer may select special conditional parameters. The available special conditions are "minimum quantity," "do not reduce," "all or none," and "deferred settlement." The display portion **530** of **Figure 5C** illustrates one means of selecting special conditions. In this embodiment, the barterer may select one of the conditions by

selecting a corresponding box. If the minimum quantity condition is selected, the barterer then either adjusts the display quantity via the arrows or enters a minimum quantity value. The default minimum quantity may be set to equal the barter quantity **504**. Selecting "do not reduce" means the per share value will not be reduced even if the transaction date is the stock's dividend date. If the barterer selects the "all or none" option, all barter matches must barter the entire quantity of the stock to be traded away.

Selecting the "deferred settlement" condition creates a Himmelstein Option of the item being bartered. The barterer is then required to identify open and close settlement dates, which may be the same. If the barterer is already bartering a Himmelstein Option, the barter ordering module **105** automatically selects "deferred settlement" and displays the date used by the original creator/issuer. The barterer may modify the dates as long as the modified dates are within the range of dates used by creator/issuer. Optionally, at step **531**, **Figure 5C** the barterer may enter a subsequent amount of the security or a different security to be provided at settlement. As hereinbefore described, the system will prompt barterer to include minimum criteria to clearly identify the security and the value.

At step **428** of **Figure 4B**, if the desired security is stock, the barterer selects between three choices for the desired stock with respect to a dividend reinvestment option. Accordingly, the barterer chooses between: 1) the stock must have a dividend reinvestment program; 2) the stock must not have a dividend reinvestment program; or 3) accept new stock with or without a dividend reinvestment program. In the embodiment illustrated in **Figure 5D**, the barterer selects the desired option by selecting the corresponding box in section **532**.

At step **429** of **Figure 4B**, the barterer chooses the type of barter they wish to transact, (i.e. a direct barter only or permit the website to act as the barterer or use an intermediary if a direct barter is not available). The barterer can request a direct barter with an order from the posted barter database at a first fee rate, or in the alternative for a second fee rate, the barterer can request the website to be the barterer. The first and second fee rates may be the same or change independent of each other. At times to promote automated website bartering, depending on the securities to be bartered, the second fee rate may be set at a relatively low rate, or it may

be set to a premium rate for the automated service. According to the embodiment illustrated in **Figure 5D**, the barterer selects the type of transaction in section **534**.

Following the selection of barter type, step **429**, posted barter orders may optionally be displayed **430** based on matches of posted order "to be acquired" items with the barterer's "to be bartered item." In the case of a direct barter, a trade can be displayed immediately if a match is found in the database, or the barterer can complete and post the order to the database and await a match from a subsequent barterer. In the case of a barter with the website, the transaction is displayed immediately provided the website can buy or obtain the stock, Himmelstein Option, web barter dollars or cash desired by the barterer. Here, the website uses a predetermined formula including taking into account the relationship with the barterer to calculate the fee for this type of transaction.

The barterer selects the desired stock, Himmelstein Option, web barter dollars or cash price to acquire for the barter order at step **431** of **Figure 4B**. If the barterer's desired security is a stock, Himmelstein Option, web barter dollars or cash, the barterer checks the appropriate box in display **537** as illustrated in **Figure 5D**. Optionally, if the barterer's desired security is stock, the system 100 displays all stock and Himmelstein Options for the desired stock in the database, allowing the barterer to accept a Himmelstein Option in lieu of actual stock. In a manner similar to that of selecting a stock to be traded from the barterer's portfolio, stock symbols **535** are displayed upon selection of a down arrow. Optionally, the barterer can select from a list of industries **536** wherein the stock symbols **535** are filtered to list only those related to the selected industry. Alternatively, a merged alphabetical list of companies and/or stocks is shown for alphabetical searching. Additionally, the system **100** can be configured to show various companies (in a predefined sort) including the symbol and predefined financial information.

If the barterer chooses a stock or Himmelstein Option, by selecting it, the system **100** displays the symbol **535** pertaining to the chosen company. Next, in step **432** of **Figure 4C** the barter ordering module informs the barterer of the available stock trading price of the desired stock/Himmelstein Option, along with the current date and time. One method of displaying the price is illustrated in **Figure 5D** at section **538**.

The barter value of the desired item defaults to the available stock trading price at section **540** of the display of **Figure 5E** for stock, or Himmelstein Option. Further, if the system **100** had a barterer trading a stock or Himmelstein Option for cash or web barter dollars, the system **100** may prompt in **540**, the stock trading price of the stock or Himmelstein Option being traded away. The barterer can accept the displayed value at step **434** or select a new value at step **436** of **Figure 4C**. In the display of **Figure 5E**, the desired stock value for stock or Himmelstein Option can be selected similar to that of selecting the stock value to be traded. The barterer can select a fixed value using box **540** or a value plus or minus the stock trading price (similar to step **511**, as shown in **Figure 5B**) or a fluctuating stock value range in section **541** in a manner as described in connection with **510-519** of **Figure 5B**. The stock value can range around a fluctuating trading price specified as either a value amount or a percentage of the fluctuating trading price. Thereafter, as indicated in the flowchart of **Figure 4C** at step **438**, the total desired barter amount and percentage or dollar amount to the stock trading price is displayed as illustrated in sample display **542** of **Figure 5F**. At step **440** of **Figure 4C**, the barterer can change the barter value of the desired item which steps can be implemented by clicking the "change" icon of display section **542** of **Figure 5F**.

At step **442** of **Figure 4C**, the present invention assists the barterer in determining whether the barter order is financially advantageous to the barterer. Several ratio formulas, termed Himmelstein Value Ratios, are provided to assist the barterer. In the embodiment of **Figure 5F** at section **544**, the barter ordering module selects the specific formula and the Himmelstein Value Ratio is displayed. The barterer may then change the barter order per step **444** by selecting a change icon in section **544** of the display **Figure 5F**.

In an alternative embodiment, the barterer selects the desired formula after receiving help text describing the formulas. Regardless of the method used to select a particular formula, there are three preferred formulas:

Value Ratio	1)	(x/y)/(a/b)
Value Ratio	2)	(a/b)/(x/y)
Value Ratio	3)	(b/a)-(y/x)

where: a = value price for security/Himmelstein Option desired to trade away

b = current security trading price for security/Himmelstein Option desired to trade away

x = value price for security/Himmelstein Option desired to obtain

y = current security trading price for security/Himmelstein Option desired to obtain

For example, using Himmelstein Value Ratio 2, a barterer owning Coke stock or Coke Himmelstein Option is willing to barter it away at a value of $65 per share, and Coke is currently trading at $67 on the stock market. If the barterer desires to barter for IBM stock, or IBM Himmelstein Option at value of $110 per share and the stock is currently trading at $115 per share on the stock market, the value ratio formula is: ((65/67)/(110/115)) = 1.014, which means that if the barterer trading Coke stock/Coke Himmelstein Option for IBM stock/IBM Himmelstein Option chose to complete the transaction, they will gain 1.4 percent. In essence, in this formula anything less than 1 is a stock/Himmelstein Option barter transaction that loses value and anything greater than 1 is a transaction that gains value. This formula is important to understand the relationship between the value of the stock/Himmelstein Option that is being traded away and the stock/Himmelstein Option that is being obtained. In lieu of displaying the value ratio, the system **100** may display the actual percentage of increase or decrease after interpreting the value ratio. Variations of the above formulas may also be used. Any Himmelstein Value Ratio formula may be modified by adding or subtracting a predetermined value or variable. For example, Formula (a/b)/(x/y) may be changed to have the value "-1" subtracted to it making the new Formula (a/b)/(x/y)-1. If Himmelstein value formula (a/b)/(x/y)-1 is greater than 0.00 then to what extent greater is the percentage of profit, which in the above COKE/IBM example is 1.4%. Any Himmelstein Value Ratio formula may be modified by multiplying or dividing a predetermined value or variable. For example, formula (a/b)/(x/y) may be changed to have the variable "y/x" multiplied to it making the new formula (a/b)*(y/x) or (y/x)*(a/b). If Himmelstein value formula (a/b*y/x) is greater than 1.00 then to what extent greater is the percentage of profit, which in the above COKE/IBM example is 1.4%. Any

Himmelstein Value Ratio formula may be modified by having both a predetermined value or variable added or subtracted while at the same time multiplying or dividing by another predetermined value or variable. For example, formula (b/a)-(y/x) may be changed to have the value of "1" added to it and have the variable "-1" multiplied to it making the new Formula ((-b/a)+(y/x))-1 or ((y/x)-(b/a))-1. If Himmelstein value formula ((y/x)-(b/a))-1 is greater than -1.00 then to what extent greater is the percentage of profit, which in the above COKE/IBM example is 1.4%.

For securities such as CD's, bonds, annuities and government bonds that provide an interest rate/current yield until a due/maturity date, the system may calculate the actual income from that present day forward to be earned, factoring in the type of interest and adding same to all applicable variables (i.e. b or y) in the above stated formulas. For the securities stated above, the barter order module may require the settlement date to be the same date as the due/maturity date. In other words, the variables in the above formulas would be defined as:

a = value price for security/Himmelstein Option desired to trade away.

b = current security trading price for security/Himmelstein Option desired to trade away, plus future interest income from that present day forward to be earned, but not paid, before the earliest settlement date of the securities being bartered.

x = value price for security/Himmelstein Option desired to obtain.

y = current security trading price for security/Himmelstein Option desired to obtain, plus future interest income from that present day forward to be earned, but not paid, before the earliest settlement date of the securities being bartered.

For barter items or securities such as CD's that do not have a current trading market, the system **100** can also calculate the accrued, not paid, interest from issuance up to the present day. In other words, the variables b and y in the above formulas in such instances are modified as follows:

b = system calculated security trading price for security/Himmelstein Option desired to trade away includes the following:

- original purchase price or face value of barter item or security plus,

- accrued unpaid interest income from issuance up to the present day plus,
- future interest income from that present day forward to be earned, but not paid, before the earliest settlement date of the securities being bartered.

y = system calculated security trading price for security/Himmelstein Option desired to obtain includes the following:
- original purchase price or face value of barter item or security plus,
- accrued unpaid interest income, from issuance up to the present day plus,
- future interest income from that present day forward to be earned, but not paid, before the earliest settlement date of the securities being bartered.

Optionally, for securities such as CD's that do not have a current trading value, the system **100** may have the applicable variables (i.e. b or y) include the original purchase price or face value plus accrued interest income, excluding future interest income so that the system provides a "current day" value. The barterer may select the desired formula, including the definitions of b and/or y for each security in a barter transaction after receiving help text describing how each variable may optionally be defined in the formulas.

If the securities being bartered have different due/maturity dates, the system **100** may use the present day to the earliest settlement date as the period of time for calculating the income to be earned, calculating each securities' actual interest rate/current yield, factoring the type of interest, and adding same to **the** respective variables **(i.e. b or y)**. To ascertain a more accurate value ratio, when one security has interest income, such as CD's, and another security does not, such as stock, the system may include or exclude interest income from the value ratio formulas depending on the formula chosen by barterer/system. The system **100** may disclose and or incorporate the actual formula(s) used to ascertain the value ratio into a finalized transaction agreement.

Where no conventional market value is available, the system **100** may be configured to examine posted barter orders or develop methods or new formulas to determine a current trading price.

Referring to **Figure 4D** at step **446**, the barterer can review the barter order prior to submission of the order to the barter matching engine. As illustrated in the embodiment of **Figure 5F** the barter order module lists at section **546** the terms and conditions before the barterer submits the order by clicking an appropriate icon **548**. Alternatively, the barterer may decide to terminate the barter order creation by clicking a "QUIT" icon **549**.

Once the order is submitted by the barterer at step **448** of **Figure 4D**, the matching engine searches the website database for a barter order or in an embodiment where the engine matches multi-order barters, multiple barter orders to satisfy the submitted order. If no match is found at step **450**, the barter matching engine determines whether the order should be posted to the database **452** based on the timing selected at step **424** of **Figure 4B**. If the order should be posted, the barter order database module **116** posts the order to the database.

After the barterer clicks on the "continue/agree" icon **548**, (and depending on the timing chosen), the system **100** in accordance with **Figure 4D** posts the barter as an available transaction **452**, **456** and/or finds and displays "matching" posted barter orders **450**, **454** via the screen display illustrated in **Figure 6**. The "matching" in the preferred embodiment includes matching the barterer's desired item and barter items with the barter and desired items of single or multiple combinations of posted barter orders where any matched Himmelstein options have overlapping settlement dates.

Where posted barter orders are displayed, preferably the barter orders are listed by the lowest share price of the stock or Himmelstein option that the barterer wishes to acquire such as in display section **610** of **Figure 6**. If any one of the available barter orders requires the price to fluctuate with the stock market, the display is preferably continually updated so that the prices reflect market value as close to real time as possible. The screen also displays the order number, symbol, share price, ratio to stock trading price, value ratio, number of shares, barter amount, barter price fluctuate with stock trading price, special conditions, timing, and dividend reinvestment criteria.

If the individual decides that they are willing to barter away some or all of their selected portfolio stock/Himmelstein option for one or more barter orders listed, they select to do so **458**,

of **Figure 4D** (or as long as they have more barter amount available) by simply clicking on each order, (i.e. choosing first preference then second preference, and so on). Each time an order is chosen, the system **100** permits/requires the individual to revise their original quantity, and value price in the stock/Himmelstein option for which they desire to trade away in the barter, thereby requiring the individual to accept the prices and the amount of stock/Himmelstein option received in return from the barter order that they had selected. When a posted order is chosen, the system **100** enters the corresponding information in a table on the screen to notify the individual of the transaction number, number of "shares trading away" with item price, number of "shares receiving" with item price and barter amount with totals at bottom of the table as reflected in screen table **620** of **Figure 6**. For cash and web barter dollars, the fields which are not applicable remain blank. Optimally, the system may display in **620**, the after date and before date for Himmelstein Options being acquired or bartered.

Each time a transaction is chosen, the system **100** reduces the value for "amount of barter left" in a display box **622**. If an individual has less than an available barter transaction, (with no special conditions nor timing limitations) when the individual selects the order number, the system **100** shows the number of shares for which the barter is permitted. Upon selecting each order, the system **100** shows the residual amount in a display box **624** and presents three choices **460**: 1) hold stock/Himmelstein option in escrow; 2) donate the stock/Himmelstein option; and 3) purchase other stock/Himmelstein option. If any of these choices are chosen, the system **100** displays additional screens to complete the above tasks. Optionally, the system **100** may allow the barterer to convert the residual amount into web dollars, which are added to the barterer's portfolio after the transaction is completed.

Additionally, when a barter order is chosen, the system **100** "locks" the barter order, including the price, to the individual for a predetermined duration. A display of the time remaining to complete the transaction appears in a "time remaining" display box **626**. Should the time expire, the system **100** provides two options: 1) finalize transaction; 2) or lose transaction in "X" seconds, with seconds decrementing on screen. The system **100** may, if desired, inform

the individual that someone else is looking at the same barter order and may inform other users that there are pending barter orders which may come available.

Upon the individual reviewing available barter orders and deciding what they want to do, (i.e. accept one or more orders or none), they proceed by choosing one of the following four icons **631-634**: 1) clear; 2) change barter order; 3) finalize transaction; and 4) finalize transaction but display more barter options. Each option leads to the display of additional screens to complete the selected task as indicated in **Figure 4E**.

In addition to the main bartering screens, the system **100** may include pop-up screens to show "history" of past barter transactions and to show performance on how a security is performing, and the current value ratio formula provided from past transaction(s). If an individual bartered away Himmelstein Option(s) that have not gone to settlement, the system provides a screen selection showing the security or securities, the range of settlement dates allowed and preferably includes all of the criteria or information in the actual barter transaction.

The system **100** exhibits other special conditions such as if the value of a security falls, the system **100** may require barterers to barter some or all of a security back; an election to require that the value ratio must stay within a specified range for a specified time or trigger an action by the system **100** such as a penalty, or forcing the individuals switch some or all security back, etc.; and the entry of multiple securities or symbols, and corresponding value prices, and permit the system **100** to automatically take the best value ratio as long as value ratio is over a specific number (i.e. such as 1.00) set by the barterer and the system **100** automatically completes the transaction if posted barter orders exist meeting that criteria.

The system **100** may be programmed to automatically purchase security within a predetermined value range when a barter order is posted or market values change, complete a barter transaction for the barter order and sell the acquired security while charging an appropriate fee. The system **100** may act as a negotiator between barterers, sending each an e-mail or otherwise notifying them when the search engine discovers potential matches among barter orders. The system **100** may permit access by individual barterers to the identity of barterers who have posted "matching" barter orders to allow them to negotiate directly between

themselves through e-mail or otherwise. The system **100** may require e-mail sent through it to purge "identity" (i.e. ensure anonymity). The system **100** may create an e-mail subsystem allowing individuals interesting in bartering to enter limited pertinent information into the blanks of the agreement being presented to one another only identifying the individuals by the order number that was created by the system **100** when it originally posted the barter order. This is referred to as an "offer to purchase." The system **100** may lock the individual's security being offered for a specified time allowing the individual receiving the offer time to accept, modify, or reject the offer. In other words, the individual making the offer cannot back out unless the person receiving it fails to respond within the time frame, modifies it or rejects it.

The system **100** can also be configured for telephone access so that all functions that one may do online may be done over the telephone. Additionally, pre-approved individuals can be permitted to barter for securities (which the website holds in escrow) prior to bartering their own securities.

In the generalized version of the barter system, various types of barters may be implemented as schematically illustrated in **Figures 7A** through **7E**.

Referring to **Figure 7A**, a two party exchange or direct barter is illustrated. For example, Individual "A" barters directly with Individual "B" effecting an exchange of securities, X and Y respectively. Example, Individual "A" issues or posts a Himmelstein Option to barter 100 shares of AOL worth $1,000 (Stock "X") for 200 shares of IBM worth $1,000 (Stock "Y") after 01/01/00 and before 02/01/05. Individual "B" accepts the Himmelstein Option effectuating an agreement to immediately barter 200 shares of IBM for the rights to acquire 100 shares of AOL in the future. A receives the 200 shares of IBM from B and irrevocably commits A's 100 shares of AOL to be transferred to B or B's designee at any time settlement is demanded between 01/01/00 and 02/01/05.

In the event the barter transaction is not an exact match in value, the system **100** may balance the barter transaction by allowing one barterer or the other to pay cash, provide web barter dollars, offer a different security, such as a Himmelstein Option on a different security, or allow the barterer to acquire more of the particular security that they are bartering.

Referring to **Figure 7B**, a two party exchange with an intermediary is illustrated. For example, Individual "A" barters with Individual "B" to trade away security X and acquire security Y through an intermediary. If a match is located but the values are not equal, the intermediary may retain the excess security and supplement the barterer bartering away the greater value security with cash, provide web barter dollars, a different security, such as a Himmelstein Option on a different security, or acquire more of the desired security (by first acquiring such).

The intermediary either obtains additional cash, a security, such as a Himmelstein Option, or more of the desired security, such as a Himmelstein Option from the other barterer and/or from a third party (upon which the intermediary reciprocates a security, such as a Himmelstein Option, cash, or web barter dollars). For example, using the same values above, Individual "A" issues or posts a Himmelstein Option to barter 100 shares of AOL for 200 shares of IBM. Individual "B" has 100 shares of IBM that he would like to barter for the rights to acquire 50 shares of AOL in the future. The intermediary keeps the Himmelstein Option for 50 shares of AOL and acquires the additional 100 shares of IBM and completes the exchange with individual A.

Figure 7C illustrates a three party transaction with an intermediary. Individual "C" barters away security Y to receive security X. The intermediary, which may be the barter website, identifies Individuals "A" and "B" to complete the transaction. Individual A sells or barters security X for cash and Individual B buys or barters security Y for cash. The cash amounts may or may not be equal, but Individuals A, B and C may incur a service charge from the intermediary/website for the service provided. In lieu of cash, web dollar credits are preferred where the website acts as intermediary. In another embodiment, the system **100** may allow the barterers to barter away their securities or financial interest at a different time than when they receive a security or financial interest. This is a "Deferred Exchange."

Figure 7D illustrates a three party transaction without an intermediary. In this example, barterer "A" receives cash for security or financial interest X. Barterer "B" receives security or

financial interest X in exchange for security or financial interest Y. Barterer "C" receives security or financial interest Y for the cash which is received by barterer A.

Figure 7E illustrates a two party exchange with an intermediary. Barterer "A" wants to exercise a Himmelstein Option (i.e. have settlement and take title) to own the security in the Himmelstein Option. In this illustration, the system **100** may require in the Agreement that to exercise the Himmelstein Option, the barterer must do so through the system **100**. Barterer A trades the Himmelstein Option on financial interest X for the actual interest X to the intermediary. The intermediary acquires the interest X from source B in exchange for consideration Z. The intermediary then maintains Himmelstein Option for X in its own portfolio for future bartering. Z may be web dollars or some other security or interest acquired by the website in a similar manner. Alternatively, if the value of Z is more than the Himmelstein Option for X, the system **100** allows Barter "A" to exercise the Himmelstein Option (i.e. have the settlement on security X).

Where the system **100** or a designated entity acts as an intermediary, a barterer can create a barter order that does not require a security at the same time it barters away its own security. For example, an individual may allow their security to be bartered for an interest of equal value, which the barterer can identify at a later time. The understanding being that the barterer can defer the completion of the transaction by the website or a designated entity acting as intermediary. If another barterer accepted the barter order terms, the funds for the transaction are immediately placed in an escrow account. For example, if the current tax law permitted, the system **100** would allow "X" number of days to choose a particular security and "X" number of additional days to actually acquire the new security. Therefore, the website or a designated entity may hold the securities in escrow as a third party. The website or a designated entity may, upon being directed by the barterer who has funds in escrow, acquire a specific security to complete the barter. In this embodiment, the system **100** may continually update the barterer with respect to the security such as stocks (re: stocks that the individual informed the system that they were interested in) with respect to the current "closest" matches for a specific stock or range of stocks that exist in the database system, based on the value ratio formula(s) that were previously defined

herein. This can be done by either e-mail, phone, or when the barterer accesses the website. While online, the system **100** may continually update the closest matches, thereby permitting an individual to either ignore, choose one, or choose multiple ones. If the individual chooses a match or several matches, with excess remaining funds, these excess funds are held in escrow.

The system **100** may be configured to only barter Himmelstein Options or the future rights. Reiterating, a Himmelstein Option is an agreement given by the individual that owns the barter item or security, an irrevocable right to another party that after a specific date and before a specified date, this party has the right to "go to settlement" and acquire the barter item or security. Further, the Himmelstein Option allows the party in possession or any party currently in possession to barter said Himmelstein Option, i.e. transfer said rights for settlement. Barter order parameters then include an "after date" upon which a Himmelstein Option may be exercised and an "expiration date" that the Himmelstein Option expires. The expiration date may be an indefinite date. For example, barterers may do this to diversify their portfolios where they do not have the right to sell a security immediately, (such as via a preexisting agreement with an employer company). If the security is unregistered, the system can, after the holding period, directly process the stock with a designated transfer agent in order for it to be allowed to be transferred, i.e. go to settlement. In this instance, only Himmelstein Options are able to be immediately bartered since the barterer cannot transfer the security until after a specific date.

The Himmelstein Option value and security value may be different, and usually would be different if the Himmelstein Option expiration date is a specified date and not open or "indefinite". Both dates and values are preferably displayed for matching barter orders in a manner similar to the display of **Figure 6**.

Acting as an intermediary, the system **100** can hold a barter item or security in a trust account if, or until, someone exercises a Himmelstein Option to acquire it. A barterer posting a Himmelstein Option barter order chooses the after and expiration date which date(s) must be within the terms of their Himmelstein Option if they are not the actual owner of the security. The system **100** may prompt the expiration date as "indefinite", with the barterer who is creating the Himmelstein Option away having the ability to modify the Himmelstein Option barter order

with a specific date. The value of the "Himmelstein Option" is worth less if there is an expiration date, at which time the Himmelstein Option no longer exists. If the barter item or security subject to the Himmelstein Option is held in trust by the system **100**, the system returns the item or security upon expiration date to the barterer who had offered the Himmelstein Option or the party who settled the Himmelstein Option and obtained "title." The purpose of the system **100** holding the security "in escrow", or in trust, is to ensure that a barterer acquiring a Himmelstein Option has a complete assurance that their right of ownership is "guaranteed" should they exercise it at a future date. The system **100** has the ability, (if it were a security such as stock or a mutual fund), to include or exclude the dividends, long term gains and losses and short term gains and losses. If the dividends, long term gains and losses, and short term gains and losses were included, at the end of each tax year, the 1099-DIV and gains and losses issued may be transferred to the system **100** as the "nominee" which may in turn, make the "nominee" the individual who had obtained the Himmelstein Option or the rights of ownership to the security.

Himmelstein Options having an "after date" and an "expiration date" when settlement can occur has a number of benefits for individual barterers. A barterer bartering away securities can ensure that a sale occurs after the barterer has owned the security more than one year so that any income is taxed at capital gains rate instead of ordinary income rate. If a barter works for a company that requires them not to sell the security for a specific time period, but the barterer wants to diversify their portfolio, the system **100** allows them to do so.

The system **100** has other advantages. For example, incorporating the security stock into a Himmelstein Option that is bartered removes uncertainty (i.e. future risk). This is beneficial in many instances. For example, successful, educated investors desiring to decrease their stock portfolio can recognize this benefit and utilize the Himmelstein Option to reduce their stock portfolio in a controlled manner.

Since the system **100** allows securities, such as CD's to be incorporated into a Himmelstein Option, if one wanted to become liquid prior to maturity, one can barter away a

Himmelstein Option on the CD in lieu of incurring a penalty for early redemption. The net value of the Himmelstein Option issued is logically set by the barterer to be less than the penalty.

The system **100** is preferably configured to internally track all individual rights when acting as an intermediary or escrow. If a barterer wants to "cash out", the system may permit them to barter their securities including a Himmelstein Option away for cash, or alternatively require them to exercise their Himmelstein Option and then sell their securities that they acquired.

For tax purposes, the system **100** can require a barterer to transfer with the security their estate exemption (or a portion thereof) up to the allowed estate exemption amount (which is currently $625,000) as a gift. In this case, the barterer is not entitled to this at death. When that individual receives a security in return, the individuals from whom the security came would also have given an estate exemption. Also, the system **100** can be configured to utilize the gift tax exemption. In essence, allowing a barterer to gift up to the maximum non-taxable amount, which is currently $10,000.00, to each and every individual that they barter with at which time they receive the same amount back in the security such as cash as "a gift". This requires all gift transactions to be less than or equal to $10,000.

If Section 1031 of the Internal Revenue Code of 1986 is amended to include securities as defined earlier, the present system can be configured to effectuate a tax-deferred exchange should one or both bartering parties desire such. Further, the system **100** can be adapted, modified or changed to utilize or capitalize on any existing or future tax laws.

Per the S.E.C., barter transactions or transfer of rights are not registered. Thus, this system permits bartering in a discrete and/or anonymous manner, (i.e., not informing the public). However, the system **100** is preferably configured to compile historical barter information regarding barter transactions of each barter. Additionally, the system **100** may be modified to meet S.E.C. regulations, if required. Terms and Conditions in a Himmelstein Option can include contingencies for settlement. For example, a Himmelstein Option may be bartered with a contingency that for settlement it must meet SEC approval.

The present system permits any type of securities or financial interests to be bartered, including but not limited to CD's, stocks, bonds, notes, evidences of indebtedness or interest, interests in a partnership, certificate of trust or beneficial interest, etc. The system **100** can interface with or be incorporated as part of online companies in such a fashion that it is transparent to the clients of the online trading company. When a client from an online trading company desires to purchase a particular security, the online trading company may choose to acquire, if available, from another individual who has entered a transaction to barter their security away. The online trading company can act as the intermediary and barter for the security, in essence making the online trading company the system **100** barterer with the ability to acquire new stock and/or any security, and then sell it to their online client. By doing this, the online company can keep the entire spread between the "ask and bid" with no commissions, and undercuts traditional stock exchanges in price and speed by eliminating intermediaries such as floor brokers or specialists from the trading process.

The system **100** can be configured to handle "exchange funds" often known as "swap funds" or (Private Placement Memorandum) P.P.M. wherein an individual puts in their financial interests or security (such as stock shares) into the fund for exchange units of the entire fund. This allows the individual to diversify their financial interests or securities such as stock holdings without having to pay capital gains taxes. In such a case, the system **100** maintains "system" funds and barterers exchange various financial interests for units of the "system" fund. The system **100** can also be configured to further open and close new funds when deemed necessary by the system or by pre-set parameters.

The system **100** can allow barter orders to require only some security up front at the time of the Himmelstein Option Agreement being consummated. This portion of the security or commodity may or may not be refundable. The balance of the Agreement would only be paid if the Himmelstein Option is finalized, or ownership of the security is transferred.

For example, a posted transaction can state that the Himmelstein Option must occur after 01/05/00 and before 01/06/00 and the barterer is bartering AOL stock for cash or web barter dollars for $5.00 per share paid immediately which is non-refundable and $95.00 per share at

settlement. Individuals accepting this Himmelstein Option must pay the $5.00 per share, which is non-refundable. On 01/06/00 if the AOL stock is less than $95.00 per share, the individual will choose not to exercise their rights in the Agreement, thereby allowing the Agreement to expire. This is to be defined as selling long, in the "virtual stock market", (i.e., system **100**).

In an alternative embodiment, the system **100** may allow a barterer to issue a Himmelstein Option on a security that the barterer does not own, nor have a Himmelstein Option (i.e. rights to own) on. If, or when, the Himmelstein Option is chosen (for example, by person "A") the barterer is required to acquire the security or the Himmelstein Option that was being traded away, on or before the date after the barter transaction may occur, to then hand it over to person "A". This is to be defined as selling short or trading futures in the "virtual stock market" (i.e. system **100**).

The virtual market (i.e. system **100**) can handle what is referred to in the financial industry as a margin account wherein the system **100** allows the barterer to borrow web barter dollars, cash or issue Himmelstein Options against the value of their portfolio including Himmelstein Options in their possession.

When someone issues a Himmelstein Option, the barter transaction can also allow the person issuing the Himmelstein Option to enter a different before and after date for the Himmelstein Option for the new security desired. Therefore, in this embodiment, the system **100** may require the person posting the transaction for the Himmelstein Option for the security desired to give a specific date before, and a specific date after, or a range of dates that would be acceptable. This range of dates may be disclosed to potential barterers; or in the alternative, can be undisclosed (making a potential barterer be required to choose specific dates, before and after) without knowing the range of dates that the individual posting the Himmelstein Option used.

With respect to the securities that provide dividends, interest etc., the system **100** can further do the following. The system **100** may keep the dividends, interest etc. as part of the transaction, and may put in a common "pool" all dividends, interest etc. realized. A formula is used to proportion the amount between any, and all, clients holding Himmelstein Options for the specific class of items.

The system **100** can require barterers to enter Himmelstein Options or barter orders in round lots. For example, if the security was stock, the system **100** can require increments of 100 shares.

The system **100** can have the ability to break down posted order(s) into specific dollar and or quantity amount(s) allotment and re-post. For example, if the system **100** chose to break down into a specific dollar amount, the system **100** can choose one thousand dollar amount(s) or block(s). If someone posted 10 shares of IBM stock at $110.00 for each share, the system **100** can re-post to be 2 barter orders: one order to be 9 shares of IBM stock with 10 web barter dollars; and one order with 1 share of IBM stock as the residual amount. In another example, if the system **100** chose to break down into a specific quantity amount in the security "stock", the system **100** may decide to break down posted orders to allotments of 100 shares and post the remaining portion (if any) that isn't dividable by 100. For example, if the posted order was 1220 shares, the system **100** can re-post to be 13 barter orders: (12) barter orders with 100 shares and (1) barter order with 20 shares. Further, if the system **100** wanted all residual amount(s) to be a specific figure, the system **100** can require the balance of the security plus web barter dollars to always be a specific value. The purpose is to simplify the barter values to be essentially equal to a common value or multiple common values in the system **100** to facilitate more barter transactions.

As a "virtual stock market", the system may allow all securities to be in decimal format or dividable by 100, 1000 etc. This means that even a Himmelstein Option (no matter the security stated in the Himmelstein Option) can be in decimal format or dividable by 100, 1000 etc. Therefore 1.00 = 1 total unit of the particular security. For instance if the security is stock, 1.00 would equal one share of stock for a particular company.

Therefore, any fractional or decimal amount created from a barter transaction can be worth for example, as little as .001 of a web barter dollar or .001 of a U.S. dollar. Specifically, if Individual "A" posted a barter order to barter away 100 shares of AOL stock at $85.00 per share while desiring IBM shares at $180 per share, the system may, (if an available match existed or if it was a direct barter with the website) complete the barter order and provide 47.22 IBM shares at

$180.00 per share. In this case, decimal amount of .22 is worth $39.60, if $180 is the current stock trading price per share. Alternatively, the system/barterer may allow, depending on the parameters set, barter 99.53 shares of AOL stock for 47 shares of IBM stock.

The system can state in all barter agreements (i.e. terms and conditions) that all parties using the system may accumulate "fractional" or "decimal" amounts (i.e. all values less than (1.00) total unit of a particular security) from different parties and upon the sum equaling 1.00, allow the sum to become 1 unit of a security, such as 1 share of stock. It should be noted that for Himmelstein Options, the system would be required to ensure the latest before dates and latest after dates overlap, and the system would restate the before date and after date to be the latest before date and earliest after date of all the fractional or decimal amounts.

Preferably, the system maintains a history knowing which fractional or decimal amount came from which security, such as stock, and can, when beneficial to the system and/or the barterer, re-separate a unit of a particular security and rematch it back together with a portion of the original security that had been part of the actually split. If for a Himmelstein Option, this may change the range of settlement dates.

Optimally, the system may allow barterers to barter fractional or decimal amounts to other barterers and/or only with the system.

The system **100** may set the standard for minimum transaction and maximum transaction based upon various concerns, including but not limited to, profitability and or irregularities, illegal trade practices and illegal trade patterns.

The methodology of the "standard" Himmelstein Option is to allow two or more parties to agree at a future date to barter, exchange or sell items or securities based on current agreed values, regardless of the trading values of the securities at the time of settlement. In an alternative embodiment, two or more parties may agree to exchange or barter at a future date based on values on that future date. In this embodiment, the settlement date or dates for each security may yet be a different date.

The system may unilaterally determine, or give each individual barterer, the ability to select a closing price for securities as trading days get longer with extended after-hours trading.

For example, if a security was stock, the system may permit an individual to choose the traditional 4:00 P.M. eastern/standard time closing price of the NYSE and the NASDAQ market. On the other hand, the system or individual may choose the value based on after-hours trading. For example with the security, stock, or Himmelstein Option for stock, the system uses the closing price as the current stock trading price as noted on **538**, **Figure 5D** and **506**, **Figure 5A**.

The system **100** can operate 24 hours a day or during standard market hours and/or during predefined after hours trading or a combination thereof. The system **100** can further allow specific securities to be traded/bartered during specific time frames or allow a barterer to choose the hours during which the barterer wants their barter order posted (i.e. available for barter). Furthermore, the barterer or the system may allow the after hours trading market to operate totally independent from the standard market hours session. It may be a selectable parameter by either the barterer or system to determine whether a barter order posted during standard hours will participate in the after trading sessions and vice versa. Also, the barterer or system can determine if un-executed barter posted orders placed in either the standard or after hours session carries over to the other session or gets canceled.

The system can ensure that barterers remain anonymous from one another and may utilize trustees, assignors or intermediaries to accomplish such.

The system can also allow any barter order to be canceled under specific terms. Further, if the order was not "locked" by a barterer or already processed, the system can permit an individual who created the barter order to cancel or modify same.

The system can also utilize the latest security features and encryption methods available.

The system may permit an individual to post a barter order with a range of quantities acceptable to the individual. For example, if the individual posted IBM stock with a range of 5-10 shares, this means that the system can accept a barter order for any quantity between 5-10 shares. This increases the likelihood of the barter transaction occurring. As will be recognized by those skilled in the art, the fee structure charged by the system may be modified to handle this embodiment.

The system **100** can also conduct or perform auctions wherein the system **100** can further require: 1) a bidder to bid with a specific security; 2) a bidder to bid with a specific list of securities pre-approved; 3) require various conditions on a bidder such as requiring security to be held by the system/designated agent; 4) pre-approve an individual to bid and 5) Minimum bid requirements may exist. The system **100** may use the embodiment that allows "offers" and allows communications between potential barterers using the system's e-mail subsystem.

An agreement for a Himmelstein Option can state various additional conditions such as requiring that the barterer in possession of or in ownership of a Himmelstein Option must first offer or sell same to the system **100** and/or owner of the security prior to going to settlement. The system may allow a barterer creating Himmelstein Options the ability to draft specific conditions to essentially create a custom contract to meet the barterer's needs.

If the system **100** utilizes an intermediary or designated agent, the system **100** has the ability to fully communicate in such fashion to ensure that all securities are transferred back and forth in a proper controlled and secure fashion.

The system can authorize and permit an individual to access the ebarterrealestate.com system and utilize an intermediary, or directly barter for real estate.

Referring now to **Figure 8**, the posted barter order database module **116** stores posted barter orders **806**, provides access routines **802** and performs maintenance of the database **804**. Among the access routines **802** are add order record, delete order record and get order record.

The add order routine generates a database record that comprises the barter order in addition to a unique transaction number, the time and date stamp of the order and the account number. There are numerous delete routines to remove posted barter orders based on different criteria. Some of the criteria are account number, transaction number, time and date, and barter item. Similarly, the get routine can return records based on the same criteria.

The maintenance program **804** executes periodically, or optionally at the request of and access routine **802**, to remove and modify posted barter orders. For example, orders may be modified if a stock split occurs and the barter order designates this stock or a Himmelstein Option for the stock. Orders can be removed for a number of reasons such as the barter order

expires, the barter account closes or the barter item is no longer available. For example, a barter order can be removed if stock trading is halted and the barter order designates this stock.

Barter orders are modified by the maintenance program **804** under a number of circumstances. A stock symbol designated in an order may have changed or the account number of the barter order is changed. Optionally, maintenance program **804** generates indexes and tables to facilitate quick access to the database records.

Optionally, if the system included a separate database of each individual's portfolio for all securities, the system can perform similar access routines and maintenance routines as described above.

With reference to Figures 11 and 15, these figures represent alternate graphical user interfaces to those shown in Figures 5A-E, by which users may place barter orders. Figure 12 illustrates a response screen to a barter order which is an alternate graphical user interface to Figure 6, while Figures 13 and 14 illustrate help instructions for that response screen.

One recognizes that many modifications may be made to Figure 12, either in the column headings or in the way that the information in the rows is expressed. For example, additional column headings can include "buy-side shares", "trade price for the buy side/trade-for side" and/or "trade price for the sell side/trade-away side". Also in Fig. 12 on the line where "you save" $75.00, the savings can be expressed as $0.075 per sell side/trade-away side share, or $0.15 per buy side/trade-for side share. The "you save" amount can be either positive or negative. The figure can display another column "equivalent purchase share price" wherein for this line the entry is $100.10, showing that the user can save $0.15 per share relative to the buy side/trade-for ask price. In other words, for IBM, $100.10 = the $100.25 ask price - $0.15 savings per share. Likewise, an "equivalent sale share price" can be shown as $54.20; i.e., for HD, $54.20 = the $54.125 bid price + $0.075 savings per share. The savings per share on the sell side is one half the savings per share on the buy side because twice as many shares are being sold as being bought.

With reference now to Figures 33-54, other alternative graphical user interfaces are shown to those described above. More specifically, Figure 33 shows a control center GUI

through which users can enter and process barter orders and populate the order book, or database of posted barter orders, with marketmakers further able to enter and process rules for automatically and/or manually processing barter orders. The information in the help screen of Figure 34 provides an overview of placing and processing barter orders.

The GUI of Figure 35 illustrates the contents of the Order History tab in the Control Center of Figure 33, while the GUI shown in Figure 36 shows the contents of the Saved Orders tab of the Control Center.

Figure 37 shows a GUI accessible by clicking the "trade" option from the Saved Order screen of Figure 36 which provides a trader with the option to place "Trade From Order Book," market order and limit order barter orders. The related instructions in the help screen of Figure 38 describe the various processes of entering and processing a barter order.

The GUI of Figure 39, selectable by clicking the Trade From Order Book button of the order entry screen of Figure 37, along with related help instructions in the help screen of Figures 42 and 43, provides an interface for viewing and analyzing barter orders available in the limit order book stored in database 116. The Level II Quotes screen of Figure 40 and the Internal and External Offers screen of Figure 41, with the associated help instructions shown in Figures 42 and 43, provide user information for interpreting the level II quotes and internal and external offer information.

In an alternative embodiment of the invention, the system 100 may require a barterer to enter only (1) the symbols for the assets that he wants to barter, and (2) either (a) the ratio of the shares of one asset to the shares of the other asset, or (b) the ratio of the currency value of one asset to the currency value of the other asset. The barterer does not have to enter (1) which symbol corresponds to the buy side and which corresponds to the sell side, or (2) the exact quantities of each asset to be bought and sold.

In the instance where exact quantities of shares or currency values are entered but the asset symbols are not specified as buy side and sell side, marketmaker responses generated by the Marketmaker Toolkit are presented on two sides: one for when the barterer wants to purchase the first-entered asset and one for when the barterer wants to sell the first-entered asset.

In the case were the ratio of share quantities or currency values (rather than exact quantities of shares or currency values) are entered, marketmaker responses generated by the Marketmaker Toolkit are presented on a per-share or per-currency unit basis. There are many variations on how such responses may be generated; for example, (1) price per 100 shares of the buy side asset, and (2) price per US $1,000 of the sell side asset. Other variations will occur to those skilled in the art. Alternatively, system 100 may require that all entered orders have equal buy side and sell side currency amounts (subject to a non-zero tolerance so that trades may be executed in integer shares, integer currency units, or multiples of these, such as 100-share units). Accordingly, in these embodiments a barterer would enter only the symbol for the assets to be bartered, without indicated shares, currency values, or a ratio thereof. In these embodiments, marketmaker responses generated by the Marketmaker Toolkit are presented on two sides and on a per-share or per-currency unit basis. In a variation of these embodiments, the exact quantity of either the buy side or sell side, but not both, may be entered by the barterer. With reference to Figures 39, 40 and 41, the savings amount shown in the Limit Order Book's individual offers (and, by extension, the Quick Fill offer) represents the monetary difference realized by a user between trading on offers that include system 100's internal offers ("System Offers"), and trading on offers that are exclusively national market offers/external offers ("Benchmark Offers"). These savings amounts may be computed by a variety of methodologies, depending on what offers are included in System Offers and what the Benchmark Offers are assumed to be. The System Offers may or may not include offers from the national markets. Further, the Benchmark Offers may be based on reasonable hypothetical assumptions. One assumption is that the only national quantities available to trade are those shown directly in the Level II quote system. A second assumption is that the total size of the incoming barter order is available to be traded at the National Best Bid and Offer (NBBO) prices. This assumption would lead to a smaller (or more negative) Savings amount than would the first assumption. A third assumption is that a fixed number of shares is available to trade at every 0.01 price increment for each security in the barter order. Price increments other than 0.01 could also be used. A fourth assumption is to assign a (different) quantity of shares available to trade to each marketmaker,

each exchange, and each ECN, shown on the Level II quote system. These and other assumptions may be appropriately used in calculating user savings.

In the lower portion of the Limit Order Book (LOB) shown in Figure 39, the System Offers are ranked from most attractive (top line) to least attractive (bottom line) according to "MSFT Ask" price (in general, this price is the ask price of the buy-side security). This ranking is based on the assumption that a trader can sell the sell-side security on its NBBO bid, and purchase the buy-side security at the variable ask price shown in the System Offer. The higher this ask price, the more the trader must pay and the less attractive the offer becomes.

Other methodologies can be used to rank offers. For example, an assumption can be made that the buy-side security is always purchased at its then-current NBBO ask price, while the sell-side security is sold at a variable bid price. In this case the lower the variable bid price, the more a trader pays (or the less he receives) and the less attractive the internal or external offer. Other methodologies can be used to specify either the buy-side price or the sell-side price at the time an offer is displayed. Examples include (1) the midpoint of a security's NBBO bid and NBBO offer, (2) a fixed dollar price, such as today's opening trade price, or such as $50, and (3) a price that depends on the size of the incoming order, such as the NBBO ask price plus 0.01 per 100 shares being purchased. Other methodologies may also be appropriate.

Help information shown in Figure 44 provides user assistance for trading on individual barter orders in the barter order book of Figure 39. One option for trading is to execute a Quick Fill, available through the Quick Fill button shown in Figure 39 as explained in the help screen illustrated in Figure 45 and resulting in the Instant Confirmation screen shown in Figure 46. Figure 47 illustrates a help screen containing information for interpreting the contents of the Instant Confirmation screen of Figure 46.

The user help screens shown in Figures 48, 49 and 50 provide user assistance for trading individual orders from the order book of Figure 39. Note the tables of Figure 49 are illustrated in Figure 50.

With reference now to Figures 51, 52 and 53, the GUI shown in Figure 51, accessible from the Limit Order button of the Order Entry GUI shown in Figure 37, enables a user to enter a

limit order for a barter order. The Market Order Entry GUI shown in Figure 52, similarly accessible through the Market Order button of the Order Entry GUI (Figure 37), enables a user to enter a market order for a barter order. The help screen illustrated in Figure 53 provides user assistance relating to both limit and market orders.

Referring now to Figures 10 and 10A, alternative embodiments of the present invention are shown further including marketmaker 120, basket order 121 and contingency order 122 barter tool kit systems ("tool kits"). Like features to those described above are indicated by like reference numbers. Each toolkit utilizes a software program or programs that interface with the system 100.

System 100 of Figure 10A is seen to further include capacity for additional processing modules 123. The system of Figure 10A further includes an application programming interface 124 specific to barter order interface 105 operable through either a web interface 125 or a custom vendor interface 126. As described above, the various computing devices can interface the barter order system through a public or private network connection, optionally through a website web browser.

As will be described in further detail below, the use of the toolkits automates certain processes and functions which otherwise might require significant manual activity. As used herein, the term "automate" and variants including "automated," include the process or operation of notifying an operator that a manual intervention or response is required.

As used herein, a "marketmaker" is any person or system that responds to order flow by making bids and offers on which another person or entity can trade. Such a marketmaker is said to add liquidity to a market when he allows another to trade on his bid or offer. Also in the context of these specifications a "trader" is any person or system that desires to execute a particular order, including a market or limit order, and is looking for another party to make a bid or offer for such order. Such trader is said to remove liquidity from the market when he executes his intended order. Accordingly, any person or system that, in response to order flow, creates an offer that resides on the Limit Order Book (LOB) is deemed to be a marketmaker, and any person or system that attempts to trade against an offer residing on the LOB is a deemed to be a

trader. Trader-initiated limit orders residing in the system may be executed by marketmaker offers automatically at any time, with or without appearing in the LOB. Consistent with this paragraph, a person institutionally designated as a marketmaker may desire to enter barter orders as a "trader" in the context of these specifications, while a person or entity who is not a broker-dealer may desire to provide offers through the herein-described Marketmaker Toolkit and act as a "marketmaker" in the context of these specifications. Users of system 100 will thus include both traders and marketmakers.

As will be appreciated from consideration of the description below, the toolkits as described herein are operative in many instances to respond to both barter orders and barter order requests for quotes. As used herein the term "barter order request" includes both a barter order and/or a barter order request for quote.

Marketmakers profit by capturing the bid/ask spread on trades, while minimizing the cost of position management or the cost of immediate hedging of these trades. The System 100 is designed to deliver a particularly attractive order in this regard. System 100 order flow carries all of the bid/ask spread profit potential but only a small fraction of the market risk and adverse market impact associated with traditional orders.

System 100 order flow delivers a traditional buy and a traditional sell order simultaneously. For example, a barter order might be to buy $100,000 of IBM and sell $90,000 of HON, each contingent on the other. By executing these legs at the same time, the marketmaker generates a profit that is proportional to the dollar sum of both legs, or $190,000, but generates market exposure that is proportional to the dollar difference between the two legs, or only $10,000.

Of course, the ultimate attractiveness of a barter order depends on many variables, including the dollar difference between the buy and sell legs, the industry closeness of the stocks, and the liquidity of the two names. System 100 allows marketmakers to use a tool kit, which not only provides the means to measure the attractiveness of any incoming barter order along these and other dimensions, but also to specify how aggressively or passively to respond to it, either on

an absolute price and size basis, or in terms of last trade price and size, or in terms of the current NBBO (National Best Bid and Offer) prices and sizes.

A marketmaker tool kit is a system that allows marketmakers to characterize incoming orders by creating or defining their own rules that include (1) conditions that describe an incoming order, and (2) price/size tiers that form automatic quotes or executions to one or more traders' orders if the conditions are satisfied. These automatic quotes and executions bring greater liquidity to the System 100. For example, marketmakers can write a rule that allows them to manually or automatically offer to trade a barter order at a fixed price, or a market-based price, such as 10% of the NBBO spread under the current NBBO offer, in the current NBBO size, whenever the dollar sizes of the buy and sell legs are almost equal and the two securities bartered are in the same industry.

One embodiment of a marketmaker toolkit is embodied in the graphical user interfaces and help screens illustrated in Figures 16 through 20. Another embodiment of a marketmaker toolkit is embodied in the graphical user interfaces and help screens illustrated in Figures 54-76. In the first embodiment, Figure 16 shows a GUI interface by which a marketmaker can establish automatic bid/offer responses. Figure 17 shows a GUI for working with symbols related to the automatic bid/offer responses, while Figures 18, 19 and 20 illustrate help screens containing user instructions for the marketmaker toolkit.

With reference to the second embodiment, Figure 54 illustrates a GUI interface for marketmakers to establish both automated and manual bid/offer responses, with associated help instructions shown in Figure 55. Figures 56 and 57 show a GUI interface and help instructions, respectively, for establishing rules, while Figure 58 shows a GUI interface for establishing conditions in accordance with the help screens shown in Figures 59-61.

Figure 62 shows a GUI through which a marketmaker can establish and edit pricing tiers in accordance with the help information provided in the illustrated help screen of Figure 63.

Figure 64 shows a GUI interface for creating a customized ticker of securities information useful to a marketmaker in accordance with the instructions shown in the help screen of Figure 66. One exemplary ticker is illustrated in Figure 65.

Figure 67 shows a GUI interface for creating a customized position/profit & loss report useful to a marketmaker in accordance with the instructions shown in the help screen of Figure 70. Two exemplary position/profit & loss reports are shown in Figures 68 and 69, respectively.

Figures 71 and 72 show GUIs for establishing manual offers, wherein barter orders that meet the established conditions are provided to the marketmaker for generating a manual response. Associated help instructions are illustrated in the help screen shown in Figure 73.

The barter matching engine 118 incorporates or interfaces with the various rules, conditions and pricing tiers a marketmaker establishes using the marketmaker tool kit shown and described above, to selectively match a barterer's barter order (that is either posted or requesting a quote only) to rules that are pre-defined by a marketmaker, in order to determine which marketmakers are providing automatic quotes or executions. A rule is a list of one or more conditions that may comprise a parameter (variable), an equality or inequality sign (operator), and a constant value (constraint). A parameter is a market-related, portfolio-related, or other type of variable that characterizes an order. For example, the average daily volume of the security being traded away is a parameter. A constant value may be a numerical value or string value (e.g., a security symbol) that places a constraint on a parameter. One condition, for example, can be "Average Daily Dollar Volume of the Stock being Traded Away" >= $2 million. Here, the parameter is "Average Daily Dollar Volume of the Stock being Traded Away", the inequality is "greater than or equal to", and the constant value (constraint) is $2 million.

Optionally, the tool kit can be set up so as to pre-designate a parameter and an equality or inequality sign, so that a marketmaker may enter only a constant value to create a condition. Likewise, the tool kit can be set up so as to pre-designate any number of the elements of a condition, so that a marketmaker may enter only the remaining element(s) to create the condition.

Alternatively, the tool kit can provide the means for marketmakers to be alerted by system 100 to specific barter orders to which they desire to provide manual responses. See again Figures 71-73 for GUIs and help instructions used to establish manual responses. For example, a

marketmaker may use the tool kit to be alerted if an order to barter for at least 10,000 shares of IBM is entered into the system, so that the marketmaker can evaluate the particular barter order and, if desired, can provide a manual quote for said order. Likewise, a marketmaker can use the tool kit to be alerted if a trader is trading away IBM but not if a trader is trading for IBM. Alternatively, a marketmaker can use the tool kit to be alerted if a trader is trading for IBM but not if a trader is trading away IBM. As another example, marketmakers can cause the system 100 to alert them if a barter order comprises two securities that fall within a list of securities that the marketmaker has pre-designated.

Marketmakers can use the marketmaker tool kit to specify exactly how many of the conditions that comprise a rule must be satisfied before an automatic price quote or trade execution is delivered to the system 100. For example, a marketmaker can use the tool kit to specify that an alert is to be sent if exactly two of the following three conditions are satisfied: (1) a trader is trading away IBM, (2) a trader is bartering two stocks that both trade an average daily dollar volume of at least $2 million, or (3) the dollar amount that is being traded for equals the dollar amount that is being traded away.

The marketmaker tool kit is designed to allow marketmakers either to use parameters already designed for them, or to create customized parameters. Examples of pre-designed parameters are number of shares or lot size, share price, trade volume, risk characteristics, and inclusion within a specified security list. An example of a risk characteristic of a barter order is "Delta", which measures the amount of market exposure of the order. The Delta is the absolute value of the difference between the currency amounts of the two legs of the barter order, divided by the maximum currency amount. If the trader is trading away a currency amount of US$100,000 and trading for an amount of US$75,000, then the Delta is 25% = |100000 - 75000| / max(100000, 75000). It would be recognized by one skilled in the art that many variations may be made in the structure and mode of operation of the tool kit without departing from the spirit and scope of the invention as disclosed in the teachings herein.

A rule can include both multiple price and size tiers used to generate automatic or manual offers on the Limit Order Book. An example of this is shown in Figure 62, whereby the offer

price may be expressed in terms of (1) the then-current NBBO price spreads for the two component securities, and (2) a pre-specified increment. In the example, the offer size may be expressed in terms of (1) the then-current NBBO sizes of the two component securities, and (2) a pre-specified value, based either on numbers of dollars or numbers of shares.

Other methodologies for determining offer price and offer size are also possible. These values may depend on a portion of (or all of) the Level II quotes for the two relevant securities. For example, offer size can be expressed as (1) the sum of the first three offer sizes shown on the Level II quote system, or (2) the size of the first offer from a pre-selected marketmaker, exchange, ECN, or ATS, etc., or (3) the sum of the sizes of all Level II quotes whose price is within 0.02 of the current NBBO offer, or (4) a pre-selected currency amount rounded to a multiple of 100 shares. Variations of these examples are also possible. Furthermore, offer price can be expressed as (1) the average of the first three offer prices shown on the Level II quote system, or (2) the price of the first offer from a pre-selected marketmaker, exchange, ECN, or ATS, etc., or (3) the price of the first Level II quote whose size is at least 1000 shares. It will now be apparent to those skilled in the art that many different variations of these determinants are also possible.

In the matching process, the rules in the marketmaker tool kit functionally operate as a filter to provide barter orders to the appropriate marketmakers. This allows the marketmakers either to post one or more potential trade prices in response to a trader's limit order or quote request, or to execute a single posted limit order or a combination of posted limit orders (i.e., "phantom" or "implied" limit orders, discussed below).

The contra side of traders' barter orders may be marketmakers. However, some system 100 order flow can be matched against other orders that are internal to the system. As explained previously, many internal orders may need to be combined to make one execution. For example, an order to sell IBM and buy HON, an order to sell HON and buy CSCO, and an order to sell CSCO and buy IBM, can form a three-way internal match. Likewise, a limit order to sell IBM and buy HON, and a limit order to sell HON and buy CSCO may create an "implied" limit order

to sell IBM and buy CSCO, to which a marketmaker may respond, exactly as if the "implied" order were an actual entered barter order.

System 100 may provide traditional order liquidity to an Exchange, ECN or ATS. One illustrative example includes the following two barter orders:

- Buy 1000 MSFT / Sell 2000 INTC / Pay $0.
- Sell 1000 MSFT / Buy 1000 INTC / Receive $30,000.
- If these barter orders reside on system 100, the system can post two traditional orders to an Exchange, ECN or ATS:
- Buy 1000 INTC @ $30.00,
- Buy 500 MSFT @ $60.00.

System 100 posts the former order so that, if a third party trades against it, it can execute both of the barter orders. That is, a three-way match is formed by these orders:

- Buy 1000 INTC / Pay $30,000 [first Exchange, ECN or ATS order]
- Buy 1000 MSFT / Sell 2000 INTC / Pay $0. [first barter order]
- Sell 1000 MSFT / Buy 1000 INTC / Receive $30,000. [second barter order]

System 100 posts the latter order because if a third party trades against it, then it can execute one barter order in full and one in part. That is, a three-way match is formed by these orders:

- Buy 500 MSFT / Pay $30,000 [second Exchange, ECN or ATS order]
- Buy 500 MSFT / Sell 1000 INTC / Pay $0. [1/2 of first barter order]
- Sell 1000 MSFT / Buy 1000 INTC / Receive $30,000. [second barter order]

It can readily be determined that the number of one-sided limit orders generated by the above methodology can increase as fast as geometrically with the number of pending barter orders, as long as the orders deal with similar symbols.

The Limit Order Book (LOB) may show offers that are (1) exclusively internal to system 100, (2) exclusively external to the system; i.e., residing on exchanges, the NASDAQ market, ECNs, ATSs, etc., or (3) a combination of internal and external. Whenever a trader chooses to trade against an external offer, he runs the risk that such offer may change before his order reaches the external market and, hence, that he misses the intended trade. Accordingly, the

system 100 may allow a trader to pre-select how such a situation will be resolved. The trader may choose between using market orders and using limit orders when his offer cannot be executed against the then-current external offers.

If a trader chooses to use market orders when the intended external offers are not available, his barter order will be split and will be delivered to the external market as two single-security market orders. Consequently, he will be guaranteed a fill of his entire order, although not necessarily at the price of the intended offer. If a trader chooses to use limit orders when the intended external offers are not available, his barter order will be split and will be delivered to the external market as two single-security limit orders. Consequently, the trader will be guaranteed that if a trade takes place it will be at the intended price, although the trader will not necessarily trade the full amount of his intended trade (and in fact, the trader may not trade at all) and the ratio of the quantities of the two securities traded may not equal the ratio specified in the barter order that was placed originally.

One advantage of the present invention is that, in contrast to trading on external offers, whenever a trader trades against an internal offer, he is guaranteed to receive the intended price. Furthermore, although he is not guaranteed to trade the full size of his intended trade, he can be guaranteed to trade in quantities that are in the same ratio as that specified in his original barter order.

In an alternative embodiment, marketmakers, institutional traders and retail traders may use a basket generator tool kit ("basket tool kit") to define a basket of securities that can be sent directly to the market, or bartered against either an individual security or another basket. Graphical user interface and associated help screens illustrating a toolkit for creating basket orders as described below are shown in Figures 26-32. More specifically, Figure 26 and 27 show GUIs for defining baskets of trade items in accordance with the instructions in the help screen shown in Figure 28. Figure 29 shows a GUI for defining symbols in accordance with the help screen shown in Figure 30, while Figure 31 shows a GUI for establishing fundamental and technical filters in accordance with the user help screen shown in Figure 32.

A basket of securities ("basket") is defined to be at least two different securities, grouped

in any combination of descriptions or sizes. The basket tool kit may allow traders to define a basket in terms of its market characteristics or risk characteristics, including fundamental, technical, and macroeconomic factors. Traders may also use the basket tool kit to select securities from existing portfolios. The individual securities' symbols may or may not be explicitly included, explicitly excluded, or a combination of both. In a simple form, the basket tool kit may be used to create a basket of all utility stocks (with no symbols specified) with market capitalization greater than $1 billion. It may be used to create a basket of all technology stocks with beta to the NASDAQ Composite Index greater than one. In more complex cases, a trader can use the basket tool kit to create a basket equal to all of the bank stocks in the trader's existing portfolio, plus enough 10-year T-bills to bring the total interest rate exposure of the basket to a specified level. Or, a trader can use the basket tool kit to create a basket of $200,000 of each healthcare stock whose 10-day moving average exceeds its 50-day moving average. Or, the trader can use the basket tool kit to create a portfolio with specified weightings of specific industrial sectors.

It will be recognized by one skilled in the art that many variations may be made in the structure and mode of operation of the basket tool kit for defining baskets of securities without departing from the spirit and scope of the invention as disclosed in the teachings herein.

One also skilled in the art realizes that basket trading can be accomplished without the use of a basket tool kit. In one embodiment, the order entry screen can provide the trader a button to click, which indicates that a basket trade is being entered. The order entry screen may request traders to enter the number of securities to be included in the basket; or, in the alternative, may allow multiple entries of securities until such time that a null entry is made.

When entering a basket, traders can include the respective number of shares or currency amounts of each security, plus either a limit price for each security, or an overall limit price for the basket. The traders may specify the ratio among the securities; or, in the alternative, the system calculates the ratio among the securities. This allows traders the ability to barter a basket as if it were a single security (i.e., trade away one security or a basket for one security or a basket). As the subsequent example demonstrates, a basket can be automatically executed based

on the derived or implied ("implied") bids or offers for the different securities within the basket. This allows the trader not to have to monitor the price movements of the different securities continuously.

For example, a trader creates a basket, which has two securities: MSFT and HD noting 500 shares of each and an overall limit price for the basket of $87,500. If traders wanted to sell the basket, they can enter this as a sell order. If traders wanted to barter this basket away, they can enter this as a barter order and state this as the "trade away" item. Upon the order's being entered, the system automatically generates two implied orders based on the overall limit price of the basket and current market prices for the two individual securities. For example, if a trader enters an order to sell the basket, and if MSFT has a bid price of $100.40 and an ask price of $100.55 and HD has a bid price of $74.30 and an ask price of $74.60, then the system generates two implied offers. For MSFT, an implied offer to sell 500 at $100.70 is generated. The MSFT offer price is calculated as [(Overall sell limit for the basket) – (HD shares)*(HD bid price)/(MSFT shares)]. Numerically, this formula produces: ($87,500 – 500*$74.30)/500, or $100.70. Therefore, if this implied MSFT order can be executed then the total basket can be executed because the remaining part of this basket order can be simply executed against the market bid for HD of $74.30. Similarly, an implied offer to sell 500 HD at $74.60 is created in response to the current market bid for MSFT of 100.40. That is, the HD offer price is ($87,500 – 500*$100.40)/500. These implied orders are monitored and recalculated continuously as market prices change. For example, if the current market bid for MSFT changes to $100.60, the implied offer for HD changes to $74.40. When someone enters a bid that matches one of the implied offers, all remaining securities in the basket are automatically filled at the current market offers. At execution, all remaining implied orders are deleted from the system.

In another alternative embodiment, traders may use a contingent order delivery tool kit ("contingency tool kit") as a means to control the timing of the delivery of an order (buy, sell, or barter order) and the definition of its limit, based on current and historical market data for any security, not just the primary order security. Traders may also use a contingency tool kit as a means to control the timing of the delivery of a barter order request for quote. Exemplary

graphical user interfaces and help screens associated with a contingency order toolkit are shown in Figures 21 through 25. More specifically, Figure 21 shows a GUI for defining an order contingency in accordance with the help screen instructions illustrated in Figures 22 and 23. Figure 24 shows a GUI for sending a contingent order to system 100 in accordance with the instructions shown in the help screen illustrated in Figure 25.

The primary order (i.e., excluding the contingency) can be a market order, a traditional limit order with a pre-set limit, or a new type of limit order where the limit is market-dependent and may change in real time.

Basic examples of the new type of limit order are:

Buy xxx shares of IBM at the then-current offer (i.e., when the contingency is satisfied).

Buy xxx shares of IBM at the 10-day moving average.

Buy xxx shares of IBM at today's low.

A case where the limit of a non-contingent order depends on other than IBM data is: Buy . . . IBM at yesterday's closing price plus (Beta of IBM vs. SPY)*(today's % price change in SPY).

The contingencies can look like anything (IBM is the primary order symbol):

Submit order if QQQ is at it's daily low after 3:45pm.

Submit order if CSCO and SUNW are each up at least 2%.

Submit order if SPY rises above its 20-day moving average.

Submit order if QQQ/SPY >= 0.25.

Submit order if IBM falls to its first Fibonacci retracement level. (or other types of technical indicators.)

The contingency tool kit can also be based on fundamental data, like earnings announcements.

It will be recognized by one skilled in the art that many variations may be made in the structure and mode of operation of the contingency tool kit (for defining the timing and limit

based on current and historical market data for any security, not just the primary order security) without departing from the spirit and scope of the invention as disclosed in the teachings herein.

It is the intention of the inventors that the basket tool kit and the contingency tool kit may be used jointly or severally with both traditional (single-security buy and sell) orders and barter orders. It is further the intention of the inventors that the marketmaker tool kit may be used with traditional (single-security buy and sell) orders, basket order, and a user bartering a basket for another basket ("barter basket order"). Although the tool kit was described in detail for use with a barter order, it also can apply to the above types of orders. Changes apparent to those skilled in the art can be made to the tool kit to adapt to each of these types of orders. For example, marketmakers can have the ability to encode procedures for responding to traditional (single-security buy and sell) orders (with either a bid or an offer, as appropriate) based on various characteristics. The characteristics of an incoming order that can be assessed by the described system include:

-- action (buy or sell), price, and quantity of the order,

-- the current NBBO "picture" of the incoming security; that is, last trade, bid price, ask price, bid size, ask size, daily price change, and last tick (i.e., uptick or downtick),

-- current information about Level II quotes for the incoming security (e.g., SLKC bidding for 1000 shares five cents below the NBBO bid),

-- historical price information (e.g., 30-day percentage price move, current 20-day moving average),

-- historical technical indicators (e.g., current level of Fibonacci retracement lines),

-- current and historical fundamental information (e.g., price/earnings ratio, five year earnings growth rate),

-- marketmakers' current inventory information (e.g., currently short 2000 MSFT, currently long $2 million of securities in NASDAQ 100 index),

-- marketmakers' historical trade information (e.g., bought 5000 MSFT today, sold 10,000 INTC in last 5 minutes, bought $500,000 of securities in NASDAQ 100 index today), and

-- price, technical, and fundamental information about the general market (e.g., Dow industrials down 50 points today).

Marketmakers are able to set up price/size tiers for automatic responses and are further able to set up Marketmaker Toolkit Monitors (Trade Tickers, and Position and P&L Reports) as they do for two-sided orders. Responses can be placed automatically, that is without directly viewing the incoming order, or manually.

In another example, should a marketmaker be using the tool kit for a barter basket order, the marketmaker may have the tool kit describe a basket order in terms of industry composition and certain risk characteristics with or without revealing industry symbols and/or individual symbol amounts.

It will be understood that while the illustration of the marketmaker, basket and contingency order toolkits has been described above with respect to the creation and execution of barter orders for stocks, the invention is not limited to barter orders but contemplates all manner of other trades. Further, the invention is applicable to all classes of items and securities described in Figure 9, including but not limited to, (1) currencies, (2) fixed income securities such as bonds, convertible bonds, and preferred stocks, (3) spot and forward energy, metal, grain, and soft commodities, and (4) futures on equities, bonds, currencies, and commodities, and indexes of these assets. The only requirement for using the marketmaker toolkit is that the assets that comprise a barter order must have publicly available, real-time disseminated market information associated with them.

If the disseminated market information on an asset includes a bid, an offer, a bid size, and an offer size, then the marketmaker toolkit can be used just as for equities, except with different asset lists and different Condition Variables used to describe the asset. For example, one of the conditions used to describe a bond is "Time to Maturity", which is not an equity Condition Variable.

If the disseminated market information on an asset includes a bid and offer, but not bid size and offer size, then the marketmaker toolkit price/size tiers may not be based on current size information. However, the price/size tiers can be based on the marketmaker's desired trade size.

For example, instead of a price/size tier being expressed as "90% of the NBBO spread / $20,000 plus NBBO offer size", it can be expressed as "90% of the NBBO spread / $50,000".

If the disseminated market information on an asset does not include a bid and offer, then the marketmaker toolkit price/size tiers may not be based on this information. However, the price/size tiers can be based on the price at which the asset last traded. For example, instead of a price/size tier being expressed as "90% of the NBBO spread / $50,000", it can be expressed as "Last Trade + 0.01 / $50,000".

Other modifications, configurations and adaptations will be apparent to those of ordinary skill in the art and are within the scope of the present invention.

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